

GRAIN & FEED JOURNALS CONSOLIDATED

A Merger of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter

In This Number

Control of Your Prices
Curb Bureaucratic Rule
Selecting Better Field Seeds
Cut-throat Competition
Advantage of Daily Inspection
Dust Explosions
Development of Grain Inspection
Sickness Not Caused by Feeds
Feed Problem in India
Better Seeds Thru Teamwork
D.D.T. Effective Only Against Adult Weevil
Margin Over Replacement
European Corn Borer Enters Minnesota
Guaranteed Prices in Canada
Stiff Demurrage Charges Reinstated
Shipping Wheat in Cattle Cars
Flaxseed Support Price
Dust Explosions of 1944
Navigation to Open Early at Duluth

Directory of the Grain Trade

In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

HAVING YOUR name in this directory will introduce you to many old and new firms during the year, whom you do not know or could not meet in any other way. Many new concerns are looking for connections, seeking an outlet or an inlet, possibly in your territory. It is certain that they turn to this recognized Directory, and act upon the suggestions it gives them. The cost is only \$12 per year.

AMARILLO, TEXAS

Grain Exchange Members
H. C. Adams, broker, grain and field seeds.*
Burrus Panhandle Elevators, public storage mdsing.*
Great West Mill & Elevator Co., Millers, grain dealers.*
Kearns Grain & Seed Co., grain, field seeds.*
Producers Grain Corp., federal bonded warehouse.*

BALTIMORE, MD.

Chamber of Commerce Members
Beer & Co., Inc., E. H., grain, hay, seeds.*
Legg & Co., Est. 1878, grain receivers, shippers.

BUFFALO, N. Y.

Corn Exchange Members
American Elvtr. & Grain Div., recrs., shprs., consmts.*
Bison Grain Co., consignments, brokerage.*
Cargill, Incorporated, grain merchants.*
Lewis Grain Corporation, consignments.*
McKillen, Inc., J. G., consignments.*
Wood Grain Corp., consignments, brokerage.*

CEDAR RAPIDS, IOWA

Federal-North Iowa Grain Co., country run grain.*
Wilder Grain Co., grain merchants.*

CHICAGO, ILL.

Board of Trade Members
Continental Grain Co., grain merchants.*
Holt & Co., Lowell, commission, grain and seeds.*
Lamson Bros. & Co., grain, stocks, provisions.*
Norris Grain Co., grain merchants.*
Quaker Oats Co., grain Merchants.*
Uhlmann Grain Co., grain merchants.*

CLEVELAND, OHIO

The Bailey Cain Co., shpr. grain, mill'd, protein feeds.*
The Cleveland Grain Co., home office.*

COLUMBUS, OHIO

Cummings & McAlister, brokers, grain, feed, oil.*
Dill Grain Co., L. J., mchts.-brokers, grain, beans, feeds.*

CINCINNATI, OHIO

The Early & Daniel Co., grain and feed service.*

DALLAS, TEXAS

Crouch Grain Co., J. C., buyers wheat, corn, oats.*

DECATUR, ILL.

Baldwin Elevator Co., grain merchants.*
Evans Elevator Co., grain, Chicago B. of T. Members.*

DENVER, COLO.

Grain Exchange Members
Woodcamp, Inc., grain, feeds, consignments.*

DODGE CITY, KANS.

Dodge City Term. Elvtr. Co., bonded storage mchdrs.*

DES MOINES, IOWA

Des Moines Elevator Co., wheat, corn, oats, soybeans.*

*Members Grain & Feed Dealers National Assn.

ENID, OKLA.

Board of Trade Members
Continental Grain Co., operating 2,000,000 bu. elvtr.
Enid Elevator Corp., operating Enid Terminal Elvtr.
Fenquay Grain Co., optrs., country elvtrs., gr. mdsg.*
General Grain Co., term. elvtr., grain merchants.*
E. R. Humphrey Grain Co., grain merchants.*
Johnston Grain Co., W. B., wheat, coarse gr., fld. seeds.*

FARWELL, TEXAS

Henderson Grain & Seed Co., field seed and grain.

FORT WORTH, TEXAS

Grain and Cotton Exchange Members
Paul Allison Co., grn. merch., milo, kafir, field seeds.*
Brackett Grain Co., brokerage, consignments.*
Blewett Grain Co., G. E., brokerage, commission.*
Carter Grain Co., C. M., brokerage and consignments.*
Great West Grain & Seed Co., grain, feed, seed.
Lone Star Elevators, public storage, merchandising.
Producers Grain Corp., federal bonded warehouse.*
Transit Grain Co., grains, seeds, concentrates, minerals.*
Uhlmann Elevators Co. of Tex., mdsgr., public storage.*

HUTCHINSON, KAN.

Farmers Co-Operative Comm. Co., grain storage.
Midwest Grain Co., grain merchants, country elvtrs.*

INDIANAPOLIS, IND.

Board of Trade Members
Cleveland Grain Co., grain commission.*

KANSAS CITY, MO.

Board of Trade Members
Bates Grain Co., receivers and shippers.*
B. C. Christopher & Co., cash grain futures, securities.*
Davis-Noland-Merrill Grain Co., grain merchants.*
Kansas Elevator Co., mlg. wheat, corn, oats, barley.*
Harold A. Merrill, grain merchant.
Meservey O'Sullivan Grain Co., gr. mchts., consnmts.*
Mid-Continent Grain Co., wheat, kafir, barley, etc.
Moore-Seaver Grain Co., grain merchants.*
Norris Grain Co., grain merchants.*
Sampson Grain Co., futures merchandisers.
Sculiar-Bishop Grain Co., grain mchts., consignments.
Simonds-Shields-Theis Grain Co., grain merchants.*
Uhlmann Grain Co., grain merchants.*

LOUISVILLE, KY.

Board of Trade Members
Gold Proof Elevator, receivers and shippers.

MEMPHIS, TENN.

Merchants Exchange Members
Buxton, E. E., broker and commission merchant.*

MILWAUKEE, WIS.

Grain & Stock Exchange Members
Stratton Grain Co., grain merchants.*

MINNEAPOLIS, MINN.

Chamber of Commerce Members
Bunge Elevator Corp., grain merchants.*
Cargill, Incorporated, milling wheat.*
Scroggins Grain Co., grain merchants.*
Van Dusen-Harrington Co. Grain Merchants.*

NEW YORK, N. Y.

Produce Exchange Members
Seaboard Western Grain Corp., grain merchants.*

OMAHA, NEBR.

Grain Exchange Members
Butler-Welsh Co., elevator capacity 3,000,000.*
Taylor Grain Co., cash grain broker.*
United Grain Co., buyers' agents.*

PEORIA, ILL.

Board of Trade Members
Bowen Grain Co., H. D., grain commission.*
Cole Grain Co., Geo. W., receivers and shippers.*
Dewey & Sons, W. W., grain commission.*
Feltman Grain Co., C. H., grain commission.
J. Young Grain Co., receivers and shippers.*

PHILADELPHIA, PA.

Commercial Exchange Members
Eastern Commodities Corp., grain dealers, brokers.*
P. R. Markley, receivers, shippers.*
Tidewater Grain Co., receivers, shippers.*

PITTSBURGH, PA.

Member Grain and Hay Exchange
Rogers & Co., Geo. E., receivers, shippers.*

PONTIAC, ILL.

Balbach, Paul A., grain buyers, all markets.

ST. JOSEPH, MO.

Grain Exchange Members
Ken Clark Grain Co., consignments and brokerage.*
Dannen Mills, grain merchants, consignments.*
Geiger & Graham Grain Co., receivers, shippers.*
Stratton Grain Co., grain merchants.*

ST. LOUIS, MO.

Merchants Exchange Members
Anheuser-Busch, Inc., feed grains.*
Fuller-Woodriddle Com. Co., gr. & millets, all kinds.*
Dan Mullally Grain Co., everything in grain.*
Nanson Commission Co., grain commission.*
Service Grain Co., grain commission merchants.*
Terminal Grain Co., grain, soybeans, consignments.*

SALINA, KANS.

Eberhardt-Simpson Grain Co., general merchants.*

SIDNEY, OHIO

E. T. Custenborder & Co., carlot distributors.*
Wells Co., The J. E., wholesale grain.*

SIoux CITY, IOWA

Grain Exchange Members
Flanley Grain Co., grain merchants.*

TOLEDO, OHIO

Board of Trade Members
Rice Grain Co., "Oats Specialists."*

WELLINGTON, KANS.

Wolcott & Lincoln, Inc., opers. Wellington Term. Elvtr.*

WICHITA, KANS.

Board of Trade Members
Adair Grain Co., grain merchants.*

WINCHESTER, IND.

Goodrich Bros. Co., wholesale grain and seeds.*

RECEIVERS, SHIPPERS AND BROKERS

Nanson Commission Co.

Grain—Hay—Seeds
202 Merchants Exchange Bldg.
ST. LOUIS, MO.

E. H. BEER & CO., INC.

GRAIN
Baltimore, Md.

Geo. E. Rogers & Co.

WABASH BUILDING, PITTSBURGH, PA.
RECEIVERS—SHIPPERS
GRAIN--HAY--MILLFEED--FLOUR

RECEIVERS GRAIN SHIPPERS

• W. W. DEWEY & SONS •
CONSIGN TO DEWEY
PEORIA

WANT ADS

in the GRAIN & FEED JOURNALS Consolidated make wants known to everyone connected with the grain trade. If you desire to buy or rent, sell or lease an elevator or anything used by grain dealers, try a want ad twice a month and your want will soon be satisfied.

Grain & Feed Journals Consolidated, a merger of Grain Dealers Journal (Est. 1898), American Elevator & Grain Trade (Est. 1882), Grain World (Est. 1928), and Price-Current-Grain Reporter (Est. 1844). Published on the 2nd and 4th Wednesday of each month in the interest of progressive wholesalers in grain, feed and field seed. 327 South La Salle Street, Chicago 4, Illinois, U. S. A. Price \$2.00 per year, 25c per copy. Entered as second class matter November 27, 1930, at the Post Office in Chicago, Ill., under the Act of March 3, 1879. Vol. XCIV, No. 6, March 28, 1945.

Board of Trade
Members**KANSAS CITY**Board of Trade
Members**SIMONDS-SHIELDS-THEIS GRAIN CO.**
GRAIN MERCHANTS

ELEVATOR CAPACITY, 4,000,000 BUSHEL

Frank A. Theis, President

F. J. FitzPatrick, Vice President

F. L. Rosenbury, Secy-Treas.

Car Order Blanks—duplicating

A formal printed requisition for cars deprives station agent of any excuse for forgetting. Shipper's carbon copy of order is admissible evidence in case of controversy over damages caused by carrier's delay.

These blanks are in books of 50 originals of blue bond paper, perforated so they will tear out easily, and 50 manila duplicates. Well bound with heavy pressboard, hinged top cover; two sheets of carbon. Size 7¼x5½. Weight, 8 ounces. Order Form 222 CO. Single copy, 65c; three copies, \$1.75, plus postage.

Grain & Feed Journals Consolidated

327 So. La Salle St., Chicago 4, Ill.

HAROLD A. MERRILL
GRAIN

1412-14 BOARD OF TRADE, KANSAS CITY 6, MO.

MEMBERS, KANSAS CITY AND CHICAGO BOARD OF TRADE

WOLCOTT & LINCOLN

Incorporated
801-810 Bd. of Trade, Kansas City
CONSIGNMENTS
Future orders executed in all markets.

C. G. W. Elevator, Kansas City, Kans.
Wellington Terminal Elev., Wellington, Kans.
Leavenworth Elevator, Leavenworth, Kans.
Hutchinson, Kans. Salina, Kans.
Wichita, Kans. Wellington, Kans.

Board of Trade
Members**CHICAGO**Board of Trade
Members**LAMSON BROS. & CO.**

2200 Board of Trade

Established 1874

Chicago, Ill.

"70 years of continuous service in the grain trade"

GRAIN — BEANS
STOCKS — BONDS
COTTON — BUTTER
EGGS—PROVISIONS

**Car Load
Grain Tables**

Eighth edition of Clark's Car Load Grain Tables, extended to show bushels in largest carloads, shows the following range of reductions of pounds to bushels by fifty pound breaks.

20,000	to 129,950	lbs. to bushels of 32 lbs.
20,000	" 74,950	" " " 34 "
20,000	" 118,950	" " " 48 "
20,000	" 140,950	" " " 56 "
20,000	" 140,950	" " " 60 "

Pounds in red ink; bushels in black, 48 pages of linen ledger paper reinforced with linen, bound in keratol with marginal index. Shipping Weight, 12 ozs.

Price \$2.50 plus postage

**Grain & Feed Journals
Consolidated**

327 So. La Salle St., Chicago, Ill.

**To BUY or SELL
RENT or LEASE
an ELEVATOR**

Place an adv. in the "Wanted" or "For Sale" columns of the **GRAIN & FEED JOURNALS**, of Chicago. It will bring you quick returns.

CONTINENTAL GRAIN COMPANY

141 W. JACKSON BLVD., CHICAGO
PRODUCE EXCHANGE, NEW YORK

RECEIVERS — SHIPPERS — EXPORTERS

MEMBERS OF ALL LEADING COMMODITY EXCHANGES

TERMINAL ELEVATORS

CHICAGO • ST. LOUIS • ENID • KANSAS CITY • OMAHA

**HERE'S YOUR MARKET
FOR HIGH QUALITY GRAINS!****The Quaker Oats Company**

GRAIN DEPT., CHICAGO, ILLINOIS

Continuous Buyers of Oats, Wheat, Corn, Barley

Chamber of Commerce
Members**MINNEAPOLIS**Chamber of Commerce
Members**CORN OATS BARLEY WHEAT****Grain Receivers and Shippers**

TERMINAL ELEVATOR CAP. 15,000,000 BUS.

Our large system of Terminals and country lines, enables us to quote attractive prices and give prompt service on all classes of feed and milling grain.

Van Dusen Harrington Company

MINNEAPOLIS

Business Founded in 1852

DULUTH

CIPHER CODES

We carry the following cipher codes in stock:

Universal Grain Code, board cover...	\$1.00
Robinsons Cipher Code, leather.....	2.50
Miller's Code (1936), cloth.....	2.00
Cross Telegraphic Cipher (10th edition)	4.00
Peerless Export Grain Code.....	85.00
A. B. C. Code, 5th Ed., with sup.....	20.00
Baltimore, Export Cable Code.....	15.00
Bentley's Complete Phrase Code.....	10.00

All prices are f. o. b. Chicago

GRAIN & FEED JOURNALS
Consolidated

327 S. La Salle St. Chicago, Ill.

SATISFACTORY SERVICE IN EVERY BRANCH of the GRAIN BUSINESS



Minneapolis and All Principal Terminal Markets

Personal Attention Plus Experienced Supervision Given Every
Consignment.**Safety
Sample Envelopes**

for mailing samples of grain, feed and seed. Made of heavy kraft paper, strong and durable. Grain size, 4½x7 inches, \$2.50 per hundred, 500, \$11.00, plus postage.

GRAIN & FEED JOURNALS
Consolidated

327 S. La Salle St., Chicago 4, Ill.

Commercial Exchange
Members**PHILADELPHIA**Commercial Exchange
Members**P. R. MARKLEY**

Bourse Bldg., Philadelphia 6, Pa.

GRAIN and FEEDReceivers - Shippers
Forwarders - JobbersMembers
Chicago Board of Trade
Minneapolis Chamber of CommerceCorrespondents
James E. Bennett & Company
P. R. MARKLEY P. W. MARKLEY

Members Chicago Board of Trade

**EASTERN COMMODITIES
CORPORATION**

Grain Dealers and Brokers

BOURSE BUILDING, PHILADELPHIA
6, PA.R. J. BARNES, President
F. J. FABER, Vice-President
W. P. JONES, Secretary
C. E. DONEGAN, Treasurer

Cable Address "RAYBAR"

**TIDEWATER
GRAIN COMPANY**Receivers—Shippers—Exporters
Export and Domestic ForwardersMembers all leading Exchanges
Established 1927Bourse Building, Philadelphia 6, Pa.
Chamber of Commerce, Baltimore 2, Md.**Clark's Decimal Wheat Values**

(Fourth Edition)

Is a book of 38 tables, which reduce any weight from 10 to 100,000 pounds to bushels of 60 lbs. and show the value at any price from 50 cts. to \$2.39 per bushel.

Each table is printed in two colors, pounds and rules in red, bushels and values in black ink. All figures are arranged in groups of five and divided by red rules to expedite calculations.

These tables have the widest range of quantity and price, are so compact and so convenient no Handler of Wheat or Beans or other 60 pound units can afford to attempt to do business without them. By their use you prevent errors, save time and avoid many hours of needless figuring.

Printed on ledger paper, 40 pages, bound in vellum, size 9x11½ inches. Order Form 33X. Price, \$3.20, f. o. b. Chicago. Shipping weight, 1 lb.

GRAIN & FEED JOURNALS

Consolidated

327 S. La Salle St.

Chicago, Ill.

**Daily
MARKET RECORD**

A boon to the grain dealer who keeps a convenient, permanent record of daily market quotations for ready reference.

This book provides spaces for recording hourly quotations on Wheat, Corn, Oats, Soybeans, Rye, and Barley. Spaces for a week's markets on a sheet; sixty sheets in a book. Order Form CND improved 97-6. Shipping Weight, 2 pounds. Price \$1.10, plus postage.

Grain & Feed Journals

Consolidated

327 S. La Salle St.,

Chicago 4, Ill.

Corn Exchange
Members**BUFFALO**Corn Exchange
Members**American Elevator & Grain Division**Russell Miller Milling Company
RECEIVERS, SHIPPERS AND ELEVATOR OPERATORS
CONSIGNMENTS SOLICITED*Our System of Terminal Elevators, enables us to give prompt service and reliable quality on coarse grains, durums and protein milling wheats.***Lewis Grain Corp.***A good firm to consign to*Corn—Oats—Soft Wheat—Barley
BUFFALO NEW YORK**Wood Grain Corp.**

CONSIGNMENTS—BROKERAGE

BUFFALO, 2, N. Y.

BISON GRAIN CORP.

GRAIN & FEED MERCHANTS

CONSIGNMENTS — BROKERAGE
BUFFALO 2, N. Y.**J. G. McKILLEN, INC.**

RECEIVERS

Consignments a Specialty
BUFFALO NEW YORKGrain Exchange
Members**OMAHA**Grain Exchange
Members**BUTLER-WELSH GRAIN COMPANY***Grain Commission Merchants*

THREE MILLION BUSHELS CAPACITY

Phone Atlantic 2900

Offices, 516-521 Grain Exchange Bldg., OMAHA, NEBRASKA

DO IT NOW

Place your name and business before the progressive grain elevator men of the entire country by advertising in the Grain & Feed Journals Consolidated. It reaches them twice each month.

Grain Receiving Books

Grain Receiving Register for recording loads of grain received from farmers. It contains 200 pages of ledger paper $8\frac{1}{2} \times 11\frac{1}{2}$ inches, capacity for 8,200 loads. Some enter loads as received, others assign a page to each farmer, while others assign sections to different grains. Bound in strong board covers, canvas back. Headings of columns are: "Date, Name, Kind of Grain, Gross, Tare, Net, Bushels, Pounds, Price, Amount, Remarks." Weight, $2\frac{1}{4}$ lbs. Order Form 12AA. Price \$2.75, plus postage.

Wagon Loads Received has columns headed: "Month, Day, Name, Kind, Gross and Tare, Net Pounds, Bushels, Pounds, Price, Dollars and Cents, Remarks." Contains 200 pages of ledger paper size $9\frac{1}{2} \times 12$ inches, providing spaces for 4,000 loads. Bound in heavy boards with strong cloth covers and keratol corners and back. Weight, 2 lbs. Order Form 380. Price, \$2.75, plus postage.

Receiving and Stock Book is arranged to keep each kind of grain in separate column so each day's receipts may be easily totaled. It contains 200 pages linen ledger paper size $9\frac{1}{2} \times 12$ inches, ruled for records of 4,000 loads. Well bound in black cloth and keratol back and corners. Shipping weight, $2\frac{1}{4}$ lbs. Order Form 321. Price \$2.75, plus postage.

Grain Receiving Ledger has 200 pages linen ledger paper and 28-page index, $8\frac{1}{2} \times 11\frac{1}{2}$ inches, numbered and ruled for 44 entries. Well bound in pebble cloth with keratol back and corners. Weight, 3 lbs. Order Form 43. Price, \$3.35, plus postage.

Grain Scale Book is designed to assign separate pages to each farmer and their names can be indexed so their accounts can be quickly located. It contains 252 numbered pages and 28-page index, of high grade linen ledger paper $10\frac{1}{2} \times 15\frac{1}{2}$ inches. Each page will accommodate 41 wagonloads. Well bound with heavy board covers with cloth sides and keratol back and corners. Weight, $4\frac{1}{2}$ lbs. Order Form 23. Price \$4.50, plus postage.

Grain & Feed Journals
CONSOLIDATED

327 South La Salle St., Chicago 4, Ill.

Grain Shipping Books

RECORD OF CARS SHIPPED facilitates keeping a complete record of each car of grain shipped from any station, or to any firm. It has the following column headings: Date Sold, Date Shipped, Car Number, Initials, To Whom Sold, Destination, Grain, Grade Sold, Their Inspection, Discount, Amount Freight, Our Weight Bushels, Destination Bushels, Over, Short, Price, Amount Freight, Other Charges, Remarks. Book contains 80 double pages of ledger paper, size $9\frac{1}{2} \times 12$ inches, with spaces for recording 2,320 carloads. Well bound in heavy black pebble cloth with red keratol back and corners. Shipping weight, $2\frac{1}{2}$ lbs. Order Form 385. Price \$2.75, plus postage.

SALES, SHIPMENTS AND RETURNS. Is designed to save time and prevent errors. Left hand pages are ruled for information regarding "Sales" and "Shipments"; right hand pages for "Returns." Column headings provide spaces for complete records of each transaction on one line. Book contains 80 double pages of ledger paper, size $10\frac{1}{2} \times 16$ inches, with 8-page index. Spaces provided for recording 2,200 cars. Bound in heavy canvas with keratol corners. Weight, $3\frac{3}{4}$ lbs. Order Form 14AA. Price \$3.50, plus postage.

GRAIN SHIPPING LEDGER for keeping a complete record of 4,000 carloads. Facing pages are given to each firm to whom you ship. Book contains 80 double pages of ledger paper with 16-page index, size $10\frac{1}{2} \times 15\frac{1}{4}$ inches, well bound with black cloth covers and keratol back and corners. Weight, 4 lbs. Order form 24. Price \$3.65, plus postage.

SHIPPERS RECORD BOOK is designed to reduce labor in handling grain shipping accounts. It provides spaces for a complete record of each car shipped. Its 80 double pages of ledger paper, size $9\frac{1}{2} \times 12$ inches, provide spaces for 2,320 carloads. Wide columns provide for the complete record of all important facts of each shipment. Bound in heavy black cloth with keratol back and corners. Shipping weight, $2\frac{1}{2}$ lbs. Order Form 20. Price, \$2.85, plus postage.

Grain & Feed Journals
CONSOLIDATED

327 South La Salle St., Chicago 4, Ill.

GRAIN ELEVATOR BUILDERS

SERVING THE MIDWEST

Since 1855

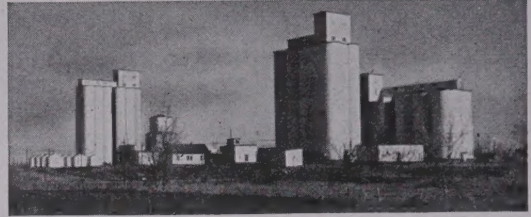
Concrete Grain Elevators
Grain Processing Plants

THE WEITZ COMPANY, INC.

Industrial Engineers and Builders

406 Fleming Bldg.

Des Moines 9, Ia.



CHALMERS & BORTON

Contractors and Engineers
Hutchinson, Kansas

Jones - Hettelsater Construction Co.

1012 Baltimore Ave. — — Kansas City, Mo.

Designers and Builders

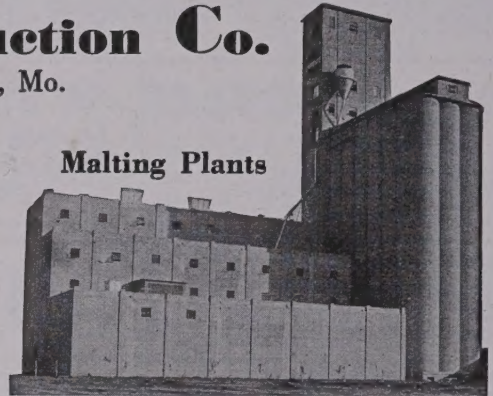
Grain Elevators

Feed and Flour Mills

Malting Plants

MILLER MALTING COMPANY

LOS ANGELES, CALIF.

Complete Malt Plant Including
Elevator—Kiln House—Germinating Compartments
Designed and constructed by us.

Santa Fe Elevator "A"

Kansas City, Kans.

Capacity
10,500,000 Bushels

JOHN S. METCALF CO.

Grain Elevator Engineers and Constructors

105 S. La Salle St., Chicago 3, Ill.

460 St. Helen St., Montreal
12-15 Dartmouth Street, London, England

837 W. Hastings St., Vancouver, B. C.

JAMES STEWART CORPORATION

Designers and Builders

Grain Elevators, Feed & Flour Mills, Soya Bean Processing Plants

1844 — 1944

A Century in Engineering and Construction

231 South La Salle Street

Chicago 4, Illinois

The Barnett & Record Company

INDUSTRIAL PLANTS

**WHITE STAR
MACHINERY & SUPPLY CO., Inc.**
211 N. St. Francis St., Wichita, Kans.
Phone 5-8531

CONSTRUCTION OF
Grain Elevators—Feed Mills—
Flour Mills—Coal Pockets
RYAN CONSTRUCTION CO.
2606 Taylor Street Omaha, Neb.

629 E. Wayne St. Fort Wayne, Ind.

CONSTRUCTION CO.
ENGINEERS AND CONTRACTORS
GRAIN ELEVATORS AND MILLS
677 N. 58 ST. OMAHA, NEBR.

CONCRETE or WOOD
1215 JONES ST. OMAHA, NEBR.

When you write our advertisers
Thanks

POLK-GENUNG-POLK CO.
Fort Branch, Indiana
Designers — Contractors

Construction Co.
Designers and Builders
Elevators, Feed Mills, Warehouses
REMODELING.
Corn Exchange Bldg. MINNEAPOLIS, MINN.

CHICAGO

Chicago, Ill.

**400 W. MADISON ST.
CHICAGO 6, ILLINOIS**

you mention the semi-monthly Grain & Feed Journals to an advertiser, you encourage him to make good on his advertised claims.

Wanted and For Sale

The rate for advertisements in this department is 30 cents per type line each insertion

ELEVATORS FOR SALE

FOR SALE—Elevator & Feed Mill in central Ohio, on Penna. RR. In excellent grain and dairy section. Good reasons for selling. Address 93F2, Grain & Feed Journals, Chicago, 4, Ill.

FOR SALE—Elevator, Feed & Grain Cleaning Plant. Located in good grain and feed territory of north Texas. Address 93E3, Grain & Feed Journals, Chicago 4, Ill.

FOR SALE—On B. & O. in Central Ohio 15,000 bu. cap., with warehouse, feed grinding equipment, coal yard, etc. Good merchandising territory. Address 93C13, Grain & Feed Journals, Chicago 4, Ill.

ELEVATORS FOR SALE—2 elevators in northern Nebraska, good coarse grain territory. 1 elevator in west central Iowa, good coarse grain and soybean territory. 1 elevator in western Iowa, good coarse grain and soybean territory. Address 93F10, Grain & Feed Journals, Chicago, 4, Illinois.

FOR SALE—Feed, Seed and Grain business. Excellent County seat layout, central Iowa on Milwaukee Railroad. Two main highways. Established 28 years. A money-making, going business. Owner desires selling account of age. Address 93E9, Grain & Feed Journals, Chicago 4, Illinois.

FOR SALE—By sealed bids, April 2nd, 1945. Two o'clock P.M. 10,000 bu. elevator, grinding and mixing equipment, real estate and coal yard. Good merchandising territory on Penn RR. and State Road No. 35, Cass County. Rights reserved to reject any or all bids. Address Lincoln Elevator Co., Lincoln, Indiana.

FOR SALE—The Board of Directors of the Ottawa Cooperative Grain Co. offer for immediate sale their 40,000 bushel capacity Grain Elevator (two legs), land and equipment, all or separately, located on spur of C. R. I. & P. R. R., Ottawa, Illinois. Sealed bids to be submitted by April 14th, 1945, subject to their apppr. We reserve the right to ref. any or all bids. Ottawa Cooperative Grain Co., Ottawa, Ill.

FOR SALE—40,000 bu. grain elevator; electric power. Located in east central Illinois in good corn and bean territory. Modern eight room house on twenty acres of good farm ground. Two 20 by 40 chicken houses, barn, double corn crib 3,500 bu. capacity. Second house on ¾ acre of ground, electricity. Reason for selling is other interest. Graves Grain Co., RFD 2, Gibson City, Illinois.

ELEVATORS WANTED

WANT TO BUY elevator in good grain territory in Illinois or Iowa. Address 93D3, Grain & Feed Journals, Chicago 4, Illinois.

FLOUR MILL FOR SALE

FOR SALE—Very reasonable, 350 bbl. flour mill complete with railroad siding and storage bins for 100,000 bu., in western Maryland. Will sell machinery separately or lease for operation. L. J. Harmatz, Atty., 110 E. Lexington St., Baltimore, 2, Md.

BUSINESS OPPORTUNITY

FOR SALE—Grain Shelling and Mixed Feed Plant Corn sheller, machine mill elevator and mixed feed plant. The Uhland Grain & Fuel Co., P.O. Box, Kyle, Texas.

BATES Grain Company.

RECEIVERS & SHIPPERS

BOARD OF TRADE KANSAS CITY, MO.
Phone Victor 7656

BUSINESS OPPORTUNITIES

FOR SALE OR LEASE—Modern four expeller mill, Tennessee location. Processing both cotton seed and soybean. Diesel powered, economical operation. W. A. Gage & Co., Commerce Title Bldg., Memphis, Tenn.

PUBLIC AUCTION—Complete equipment of the Corry Milling Co., flour, corn meal millers and feed manufacturers, on premises in this village on Sat., April 14, 1945 at 1 P.M. Building also to be sold. Further information may be had by contacting the Village Clerk, Monroeville (Huron County), Ohio.

HELP WANTED

HELP WANTED—Woman typist of experience for small office. Permanent. Grain & Feed Journals, Chicago 4, Ill.

WANTED—Experienced Grain Trader by Fort Worth, Texas, Grain Firm. Address 93F26, Grain & Feed Journals, Chicago 4, Illinois.

HELP WANTED—An experienced man to work in grain and seed elevator, also hybrid corn plant. Low living costs. Permanent job. Kelly Seed Co., San Jose, Ill.

HELP WANTED—Superintendent for small feed mixing plant at Rochester, N. Y. Must be experienced and capable making repairs. Name references first letter, also salary expected. Permanent. Oscar L. Zinter, 204 Troup St., Rochester, 8, New York.

HELP WANTED—Elevator superintendent, 250,000 bushel concrete house. Eastern section. Good salary right party. Also bookkeeper with grain experience. Address 93E7 Grain & Feed Journals, Chicago, 4, Illinois.

HELP WANTED—M & R SUPERINTENDENT—Experienced, practical man for maintenance and construction program in new feed manufacturing plant, terminal elevator and line of retail feed stores and country elevators. Must know sheet metal work, welding, millwright work and material handling equipment, and be capable of building and directing complete new department. This opportunity is worth while investigating if you are qualified. Goodrich Bros. Co., Winchester, Indiana.

MACHINES FOR SALE

CORN CUTTER & Grader—has motor—used very little. 91N8, Grain & Feed Jnlis., Chicago

FOR SALE—Like new. #23 Western Corn Sheller. W. E. Markword, Ursa, Illinois.

FOR SALE—Used Sprout Waldron 24" attrition mill in first class shape. Contact Saar Bros., Fort Madison, Iowa.

For Sale—New and used hammer mills; also other milling equipment. H. H. Hussey, Box 162, Albert Lea, Minn.

FOR SALE—I Wenger Series 600 molasses mixer and 15 in. hammermill. Wenger Mixer Co., Sabetha, Kans.

FEED MIXER—one-ton—floor level feed—has motor good as new. Write 91N9, Grain & Feed Journals, Chicago 4, Ill.

FOR SALE—Complete Barnard-Leas 250 bbl. flour mill; less power; excellent condition. Dannen Mills, St. Joseph, Mo.

HAMMER MILL with 25-hp. motor and all attachments. Priced to sell. Write 91N10, Grain & Feed Journals, Chicago 4, Ill.

FOR SALE—Twenty-inch Monarch Attrition Mill-10 HP. Westinghouse Motors. Sixty-inch Cleland grain cleaner. Lot pulleys-sprackets-shafting-Takeup and Plain Boxings. Hundred feet seventy-seven chain. Description, prices on request. W. J. Wilson, Brooten, Minnesota.

MACHINES FOR SALE

FEED MIXER for sale, has motor, and a late machine. Need space. Will sacrifice. Write 91N11, Grain & Feed Journals, Chicago 4, Ill.

FOR SALE—22 in. Robinson attrition mill direct connected to two 15 HP. motors, complete with compensating starter and ammeter. Dennison Cooperative Elevator, Dennison, Minn.

FOR SALE—Good used large size Western Pitless Sheller with roller bearings. Good used Western steel grain shaker feeder. Lots of line shaft, large pulleys, etc. Maroa Farmers Cooperative Elevator Co., Inc., Maroa, Illinois.

FOR SALE—One B&L Double Stand 9x24 rolls, Style A.C.O. 1 B&L Plansifter, 10 section. 1 Buckeye 90-HP. oil engine. Shafting, pulleys and 1-3 high 9x24 corn roll. Gruendler Hammer Mill V belt drive. H. S. Smith, Warsaw, Indiana.

FOR SALE—1 Skinner "Universal Unaflo" Steam engine 170 HP.—Heavy Duty, Center Crank, Automatic, for direct coupling to line shaft, etc. Cylinder 17", Stroke 18", 200 RPM, Right Hand Running Over. Snyder & Immell, Kingston, O.

FOR SALE—Large size Gruendler Hammer Mill, direct connected 75 HP. motor, crusher attachment and magnetic separator, complete with dust collector and pipe. In good condition. Cost \$3,300 when machinery was half price of today. Will take \$1,000. Kelly Seed Co., San Jose, Ill.

FOR SALE—1 Invincible heavy friction clutch Bran Packer; 3 Invincible friction clutch sack packers; 2-1 bu. Richardson automatic grain scales; 2-½ bu. Richardson automatic scales; 1-9x30 style "A" Allis roller mill; 5-9x24 style "A" Allis roller mills. E. J. Dalby, 42 Luverne Ave., Minneapolis, 9, Minn.

GET INCREASED PRODUCTION regardless of manpower shortage with Bonded Portable Power Stackers for box and bag handling and piling. Also Corn Cob and Shell Crushers at \$345.00. 15-ton, 22"x9" truck scales \$440.00. Immediate delivery. Terms if desired. Bonded Scale Co., 120 Bellview, Columbus 7, Ohio.

FOR SALE—3 bu. Avery Automatic scale A-1; 4 dbl. 9x18 B. B. Wolf rolls, A-1; 1-9x24 B. B. Wolf rolls A-1; 1 Wolf friction clutch bran packer, A-1; 1 Wolf friction clutch flour packer, A-1; 2 magnetic separators; 1 Wolf single 9x18 B. B. rolls; 4 dbl. 9x18 A. C. rolls, good; 1 No. 2-8 sec. B. & L. plansifter; 1 No. 0-6 sec. B. & L. plansifter; quite a lot of other items. T. A. McWilliams, 1460 S. Second St., Louisville 8, Kentucky.

WHITE'S MACHINERY HOUSE

Everything for War Plants, Feed Plants, Grain Elevators

Gehl Portable (nearly new) Feed Milling Plant—Mixer & Sheller mounted on a Ford Mercury Truck.

WHITE SALES CORPORATION

Phone 371-441

SCOTTS,

MICHIGAN

MACHINES FOR SALE

FOR SALE—2 Munson feed grinders, 1 double disc, 20" with 2-15 HP. motors direct connected. 1 single disc high speed 18" grinder direct connected with 20 HP. motors. Both with starter compensators. These machines were in perfect working order when last used. For further information you may write the Manufacturer or D. K. Briggs, Great Bend, N. Y.

FOR SALE—1 #4 JB Clement Special, 3-24" direct connecting motor driven attrition mills, double head, 1 drop gear bran packer, 1 friction clutch flour packer, 1-100 HP. Fairbanks Morse semi-diesel engine, 1-125 HP. Buckeye semi-diesel engine. D. E. Hughes Company, Hopkins, Michigan.

FOR SALE—24" Robinson attrition mill with two 20 HP. General Electric direct connected motors, complete with starter, reversing switch, and magnetic separator. Excellent condition. Priced to sell. 10 HP., 20 HP. and 25 HP. Fairbanks Morse type Y oil engines. Large stock REBUILT GUARANTEED motors, all makes, types, and sizes. Complete stock list, Bulletin No. 80, mailed free on request. Rockford Electric Equipment Co., 728 S. Wyman St., Rockford, Ill.

MACHINES FOR SALE

When you are in the market for new or used mill machinery—Electric Motors, or any other equipment, write J. E. Hagan Mill Machinery, 1522 E. High St., Jefferson City, Mo.

FOR SALE—Boss Air Blast Car Loader bought last year. Only loaded a few cars. Good as new. Size N6. Also No. 3 Sidney Scalping Machine. Good as new—never used. Baltic Mills, Phone 80, Vincennes, Indiana.

FOR SALE—One 1-ton Monarch Vertical Feed Mixer, complete with motor, in perfect working order. Replacing with larger mixer. Delivery in four to six weeks. Federal-North Iowa Grain Co., Mendota, Illinois.

MACHINES WANTED

WANTED—To purchase a Boss overshot used blower loader on trucks. State size, capacity, where located, as well as price. Reuben A. Boulware Grain & Oil Supply Co., Marienthal, Kans.

WANTED—A portable Corn Sheller and a grain cleaner. Prefer IHC No. 10 sheller and No. 47 Clipper cleaner. Give complete information to Lt. Warren W. Jones, 381½ N. Walnut, Franklin, Indiana.

MACHINES WANTED

MACHINES WANTED—One S. Howes or Monarch 30" Double Aspirator with fan, also largest size Howes cracked corn separator and cleaner. Address 93F21, Grain & Feed Journals, Chicago, 4, Illinois.

WANTED—MIXERS: Horizontal Batch type such as Howes, Sprout-Waldron, Robinson—all sizes. Send details. Also interested in Prater Hammer Mills from 5 to 20 HP., Steam Tube Dryers, Oil Expellers, Rotex Sifters. Loeb Equipment Supply Co., 907 N. Marshfield Ave., Chicago, 22, Illinois.

SCALES FOR SALE

FOR SALE—15 ton long beam Fairbanks scales. Platform 9 x 18 feet. Ten years old, in use only in last two years. Price \$600.00. Farmers Union Co-op. Merc. & Elevator Co., La Crosse, Kansas.

SCALES WANTED

WANTED—An 8 or 10 bu. Richardson automatic scale. Feuquay Grain Co., 605 First National Bank Bldg., Enid, Okla.

WANTED—One Richardson Later Model 100-lb. Automatic Scale for packing feed. Address 93F22, Grain & Feed Journals, Chicago, 4, Ill.

MOTORS—GENERATORS

FOR SALE—One 7½ Century motor, used but little, three phase 110 volt, 60 cycles. Changed current, cannot use. A bargain at \$75.00. Kelly Seed Co., San Jose, Ill.

ELECTRICAL MACHINERY

Large stock of motors and generators, A.C. and D.C., new and rebuilt, at attractive prices. Special bargains in hammermill motors 25 to 100 hp., 1,200 to 3,600 rpm. Send us your inquiries. Expert repair service.

V. M. NUSSBAUM & CO., Fort Wayne, Indiana

MOTORS—PUMPS—AIR COMPRESSORS; Guaranteed rebuilt electric motors, pumps, air compressors. Largest stock in Illinois outside of Chicago. Will take your equipment in trade. Also offer emergency motor repair and rewinding service. Distributors for Wagner motors, Goulds pumps, Sullivan and DeVilbiss air compressors. We offer free engineering advice on your problems. Write us without obligation. Ask for Bulletin No. 23. Rockford Power Machinery Co., 6th Ave. and 6th St., Rockford, Ill.

OFFICE EQUIPMENT

WANTED—To Purchase used steel office files with legal size pull drawers and one large steel desk. Reuben A. Boulware Grain & Oil Supply Co., Marienthal, Kans.

SAMPLE ENVELOPES

SAMPLE ENVELOPES—SPEAR SAFETY—for mailing samples of grain, feed and seed. Made of heavy kraft paper, strong and durable; size 4½x7 inches, \$2.50 per hundred, or 500, \$11.00 plus postage. Grain & Feed Journals, 327 S. LaSalle St., Chicago 4, Ill.

CORN COBS

Want to buy Corn Cobs to be used in making synthetic rubber.

Minimum weight 24,000 pounds. Shipment from Illinois, Indiana and Missouri.

Also Want

EAR CORN

Wire or write

Chas. P. Noell

Covington, Tenn.

Your Errors

How many costly errors do YOU make every day, when trying to reduce pounds to bushels, you are interrupted by a telephone call or a casual caller asks for a bid on his grain?

The last word in Clark's Direct Reduction Grain Tables is a combination of our popular 7-card set, Form 3275 Spiral and our new Truck Loads to Bushels, Form 23,090 Spiral which reduce by 10 pound breaks any weight of grain from 600 to 23,090 pounds to bushels of 32, 48, 56, 60, 70 and 75 lbs.

Carefully printed from large clear type, with jet black ink, showing the bushels directly beside the weight of grain reduced and distinctly separated by rules and spaces so as to prevent errors in reading. The most practical, the most helpful grain reduction tables ever published. Their use will return their cost every day of the busy season in labor and time saved and errors prevented.

The spiral binding keeps the cards flat, in regular sequence, and prevents the exposure of more than one weight unit at a time so it is easy to keep wide open the table for the grain being received. Both sets of tables are printed on heavy six ply tough check of durable quality, 11x13 inches with marginal index.

Direct Reduction Grain Tables

32 lbs. per bushel—OATS

Weight (Lbs.)	Bushels	Weight (Lbs.)	Bushels	Weight (Lbs.)	Bushels	Weight (Lbs.)	Bushels
600	18.75	1000	31.25	1400	43.75	1800	56.25
610	18.91	1010	31.46	1410	43.96	1810	56.46
620	19.06	1020	31.67	1420	44.17	1820	56.67
630	19.22	1030	31.88	1430	44.38	1830	56.88
640	19.38	1040	32.09	1440	44.59	1840	57.09
650	19.54	1050	32.30	1450	44.80	1850	57.30
660	19.70	1060	32.51	1460	45.01	1860	57.51
670	19.86	1070	32.72	1470	45.22	1870	57.72
680	20.02	1080	32.93	1480	45.43	1880	57.93
690	20.18	1090	33.14	1490	45.64	1890	58.14
700	20.34	1100	33.35	1500	45.85	1900	58.35
710	20.50	1110	33.56	1510	46.06	1910	58.56
720	20.66	1120	33.77	1520	46.27	1920	58.77
730	20.82	1130	33.98	1530	46.48	1930	58.98
740	20.98	1140	34.19	1540	46.69	1940	59.19
750	21.14	1150	34.40	1550	46.90	1950	59.40
760	21.30	1160	34.61	1560	47.11	1960	59.61
770	21.46	1170	34.82	1570	47.32	1970	59.82
780	21.62	1180	35.03	1580	47.53	1980	60.03
790	21.78	1190	35.24	1590	47.74	1990	60.24
800	21.94	1200	35.45	1600	47.95	2000	60.45
810	22.10	1210	35.66	1610	48.16	2010	60.66
820	22.26	1220	35.87	1620	48.37	2020	60.87
830	22.42	1230	36.08	1630	48.58	2030	61.08
840	22.58	1240	36.29	1640	48.79	2040	61.29
850	22.74	1250	36.50	1650	49.00	2050	61.50
860	22.90	1260	36.71	1660	49.21	2060	61.71
870	23.06	1270	36.92	1670	49.42	2070	61.92
880	23.22	1280	37.13	1680	49.63	2080	62.13
890	23.38	1290	37.34	1690	49.84	2090	62.34
900	23.54	1300	37.55	1700	50.05	2100	62.55
910	23.70	1310	37.76	1710	50.26	2110	62.76
920	23.86	1320	37.97	1720	50.47	2120	62.97
930	24.02	1330	38.18	1730	50.68	2130	63.18
940	24.18	1340	38.39	1740	50.89	2140	63.39
950	24.34	1350	38.60	1750	51.10	2150	63.60
960	24.50	1360	38.81	1760	51.31	2160	63.81
970	24.66	1370	39.02	1770	51.52	2170	64.02
980	24.82	1380	39.23	1780	51.73	2180	64.23
990	24.98	1390	39.44	1790	51.94	2190	64.44
1000	25.14	1400	39.65	1800	52.15	2200	64.65

32

48

56

60

70

75

Form 3275 Spiral includes tables giving direct reductions of any weight of grain, from 600 to 12,090 lbs. to bushels of 32, 48, 56, 60, 70 and 75 lbs. by 10 pound breaks. This set of Clark's Direct Reduction Grain Tables weighs 2 lbs. Price \$1.70, plus postage. Order 3275 Spiral.

Truck Loads to Bushels. Just what you have been wanting. Now let the big trucks come, so you can determine with a glance the number of bushels and pounds over in each load truck delivers. These Tables continue the reductions made by Form

3275, and have a range from 12,100 to 23,090 pounds. Reductions are by 10 pound breaks into bushels of 32, 48, 56, 60, 70 and 75 lbs. Shipping weight, 2 lbs. Price \$1.70 plus postage. Order No. 23,090 Spiral.

A combination of Form 23,090 Spiral, with Form 3275 Spiral shows complete reduction of all grains specified in a range from 600 to 23,090 pounds. Shipping weight 3 lbs. Price \$2.95, plus postage.

Send all orders to the semi-monthly

Grain & Feed Journals Consolidated
327 S. La Salle St. Chicago 4, Ill.

Headquarters—Special Books for Grain Dealers



Plans, photographs and descriptions of bulk grain handling facilities planned and erected by engineers specializing in grain elevators of modern design.

In compiling and publishing Plans of Grain Elevators we have striven to give readers a clear understanding of the advantages to be obtained in following the latest practices of experienced grain elevator engineers in designing, constructing and arranging a modern elevator.

This volume, our Fifth Edition of plans and descriptions of grain elevators, is the most interesting and the most helpful work on design and construction of grain elevators yet published. It has been confined to illustrated descriptions of Grain Elevators of North America because these elevators have been designed especially to meet the needs and conditions confronting grain merchants of this continent. It should be of real help in crystallizing the ideas of grain dealers as to the facilities best suited to the needs of their business, and in giving builders definite ideas as to what they want.

This new volume contains over 968 illustrations and descriptions of elevators constructed of concrete, tile, brick, steel and wood. Many central market storage, transfer and cleaning elevators, as well as country receiving and shipping elevators are illustrated and described. All are designed to expedite, facilitate and reduce the cost of handling bulk grain. Nothing has been taken from previous editions.

Many illustrations of feed grinding and mixing elevators as well as grain elevator offices, cob burners, corn cribs, conveyor galleries should help every dealer desiring to modernize his facilities.

This 5th edition of plans of Grain Elevators of North America is printed on 500 pages of book paper, size 9x12 inches, bound in Art Canvas, shipping weight five pounds, price \$5.00 plus postage.

Order now and plan an elevator that will not only facilitate and expedite your handling of bulk grain, but will also reduce your cost for power and labor, and correct known fire hazards.

Published and sold by

Grain & Feed Journals

Consolidated

327 S. La Salle Street

Chicago 4, Illinois, U. S. A.

GRAIN & FEED JOURNALS

INCORPORATED

327 S. La Salle St., Chicago 4, Ill., U. S. A.
Charles S. Clark, Manager

A merger of
GRAIN DEALERS JOURNAL
Established 1898

AMERICAN ELEVATOR &
GRAIN TRADE
Established 1882

THE GRAIN WORLD
Established 1928

PRICE CURRENT - GRAIN REPORTER
Established 1844

Published on the second and fourth Wednesdays of each month in the interests of better business methods for progressive wholesale dealers in grain, feed and field seeds. It is the champion of improved mechanical equipment for facilitating and expediting the handling, grinding and improving of grain, feeds and seeds.

SUBSCRIPTION RATES to United States, Canada and countries within the 8th Postal Zone, semi-monthly, one year, cash with order, \$2.00; single copy current issue, 25c.

To Foreign Countries, prepaid, one year, \$3.00.

THE ADVERTISING value of the Grain & Feed Journals Consolidated as a medium for reaching progressive grain, feed and field seed dealers and elevator operators is unquestioned.

Advertisements of meritorious grain elevator and feed grinding machinery and of responsible firms who seek to serve grain, feed and field seed dealers are solicited. We will not knowingly permit our pages to be used by irresponsible firms for advertising a fake or a swindle.

LETTERS on subjects of interest to those engaged in the grain, feed and field seed trades, news items, reports on crops, grain movements, new grain firms, new grain elevators, contemplated improvements, grain receipts, shipments, and cars leaking grain in transit, are always welcome. Let us hear from you.

QUERIES for grain trade information not found in the Journal are invited. The service is free.

CHICAGO 4, ILL., MARCH 28, 1945

PRIORITIES for long distant telephone calls are being abused so frequently the discrimination will soon be abolished.

MOISTURE discounts are getting so heavy every elevator of the surplus wheat territory will soon be forced to install a modern drier.

HOW DO YOU like the new demurrage rules? The charge for delaying box cars for loading or unloading is so exorbitant the whole family will cry out loud.

THE PREVAILING high temperature should help elevator operators of the corn belt to save much of the wet grain stored on the ground even tho it might be necessary to turn it.

THE ARMY wheat export goal of 240,000,000 bus. by Sept. 30 looks less impossible if ending of the war in Europe makes an end to shipping of war material, releasing the ships to carry the grain abroad, and bringing back our boys.

NOTWITHSTANDING a marked increase in the soybean acreage is not expected for 1945, many new processing plants are being prepared to handle the new crop.

HIGH WINDS have been damaging a number of elevators recently, notwithstanding they are held tight to the ground with a heavy load of grain and no cars to ship it in.

SO MANY seedsmen are being brought to book for violating the Federal Seed Act it seems there has been a neglect on their part to study the law, which also is enforcing the state statutes.

DESIGNATING the variety of wheat on the inspection certificate may help the winter wheat millers to avoid trying to make flour out of Chief Kan and Red Chief, but why buy the grain if it is not suited to their purpose?

WHEN the C.C.C. loses the five billion dollars just granted by Congress, grain merchants of experience and lifetime training will have a chance to conduct a successful grain business without expense to the tax payers.

MANY COUNTRY elevators with full bins are urged by the emergency to contract for additional storage bins and some are also buying driers in hope of saving more of the next corn crop. The western roads particularly have been suffering because of their inability to obtain cars long since ordered.

CALCULATIONS of the amount of grain in a loaded car may be of some value in checking the weights shown by scales; but are not indulged in by terminal grain weighmasters, as too many factors may change the weight theoretically possible. No claim can be collected for loss in transit on a measurement.

WAR and wheat prices, as told elsewhere, have no exact parallel in the present war. In the world war I when the government took off the ceiling of \$2.20 the price worked up to \$3.55 per bushel at Chicago. Will this happen now if the government takes the ceiling off the price of wheat? Opinion of the inflationists is that it will rise still higher.

IN THE early days of the present war, the U.S. government built and equipped 42 hemp mills with the intention of manufacturing rope, but not enough was produced to satisfy one per cent of the demand. However eight of the Minnesota plants, all of which are equipped with driers are now being changed to handle ear corn. The 1944 corn crop of Minnesota, like that of most other states, contains an excess percentage of moisture. The demand for corn drying facilities is more urgent and profitable than ever has been known to rope manufacturers.

THE RYE futures market is two-sided. Powerful forces are at work to raise the price and equally powerful forces are being exerted for lower quotations. On the bear side we have the ending of the war, and on the bull side there are the small stocks and the unprecedented inflation of money, the outcome being a good trading market with wide daily range.

UNFORTUNATELY all grain elevators have not yet been equipped with standard lighting protection, altho most fire insurance companies now grant a sufficient credit on a policy to pay for the best equipment in a few years. Two destructive fires credited directly to lightning have occurred recently and this is only March. What must we expect from the next six months?

A PERUSAL of the accidents reported in our News Columns every number should help every cautious elevator workman to avoid hazards which have proved fatal to other workmen. So many inexperienced men are still employed in the grain elevators, the wonder is more accidents do not occur. Every new employee needs a personally conducted tour of Hazard Warnings every month for a year.

THE ONLY property owners gaining any satisfaction out of the dirth of lumber throughout the land are the owners of old structures which have long been idle. Most of these have already been razed in order to gain lumber for the construction of new, urgently needed grain handling facilities, and, if any still remain, they will doubtlessly be utilized before the wars in Europe and Asia are over.

IOWA may be the state where the tall corn grows; but there is great room for improvement in its oats crop, if it is to reach the same high quality long ago achieved by its neighboring state, Illinois. Country elevator operators can aid by offering farmers seed oats approved by Ames, such as the varieties Tama, Boone, Control and Marion. The yield of oats per acre in Iowa was only 30 bus. last year, against 43 bus. in Wisconsin.

Selecting Better Field Seeds

Every grain merchant is deeply interested in his farm patrons sowing clean, heavy, plump seed of varieties well adapted to the soil and climate of his patrons. He knows just as well as anyone that the larger the crop harvested by his friends, the more grain he will have to handle, and nothing pleases him better than to have farmers' volume of choice grain swelled to the point where they will forget all about discounts and off-grade of shipments. It pays to help growers to secure better seed.

Control of Your Prices?

Do you find OPA control of the price of the commodities you merchandise and the marketing regulations of the other Federal Bureaus a handicap to the successful conduct of your business?

Do you expect the termination of the European struggle to be followed quickly by a rise or fall in the market values of farm products?

Are you holding large stocks of grain unhedged, or just waiting to get empty cars?

Would you rather take the chances of the open unregulated market than brave the domination of inexperienced bureau chiefs after the war?

Do you think the surrender of the Nazis will bring the abolition of any of the bureaus, or must all be fired in order to gain relief from postwar regulations?

Are your farmer patrons favorably disposed to a continuation of acreage allotment or production control as well as ceiling prices?

Your own convictions will be appreciated. Please write us today.

Cut Throat Competition No More

Cut throat competition has done more to wreck the fortunes of grain buyers than all other bad practices combined, and, fortunately, most of the present day shippers have long since been thoroughly convinced of the folly of bidding more for grain than they could possibly realize from its sale.

Early in the current century the sacrifice of grain elevators at sheriff's sale was a common occurrence, but experience has cured many of the bad practices of the 18th century, and men now in the grain business exercise extreme caution in all of their merchandising operations. The dealer of experience knows full well that you cannot long afford to pay more for grain than it will command in the central markets. Such transactions may reduce the volume of competitors' business but it adds nothing to the cash assets of the over bidder. The conviction of all association workers is that the promotion of friendly relations with all competitors is more conducive to increased assets than any of the old cut-throat practices.

Practical business sense dominates more sections of the grain trade today than ever before and it is a most convincing testimonial to a more kindly regard for competition than was ever nourished by Hi Overbidder in the early days of an unprofitable grain business. The old time practice of never seeing, never speaking to, or never considering one's competitor has long since been abandoned and the kindly consideration prevailing at every station today promotes the pleasure of doing business as well as one's standing at the bank.

Grain bought right is half sold.

Grain Dust Explosions

Dust Explosions do not seem to occur with sufficient frequency to convince all grain elevator workers that grain dust when suspended in air and exposed to a flame or a spark is very sure to result in an explosion. The building of re-enforced concrete grain storehouses has facilitated the keeping of grain elevators clean and free from dust, but this should not be permitted to encourage laxity of workmen guarding plant against accumulation of dust and especially the stirring up of dust in such quantities that the air is well filled with explosive powder.

The fatalities due to explosion of grain dust reported elsewhere in this number should in themselves be sufficient to stimulate real caution against the accumulation of grain dust or the stirring up of dust at any time. The history of destructive grain dust explosions has proven its power for destruction, and anyone who can and will read will never be excused from ignoring the hazards of rough handling of grain dust and smoking at the same time.

Coopering Poor Condition Cars

The supply of box cars has been greatly reduced during the war by two potent factors. One is the inability of the railroads to get delivery on box cars ordered, notwithstanding the urgent need of materials and manpower for the manufacturing and transportation of war materials.

Naturally the heavy use given the few box cars still in use has incapacitated more cars than usual for transporting grain, because of the heavy war material transported. The railroads' short manpower has prevented car owners repairing and keeping box cars in average condition for transporting grain. This calls for greater care in coopering every car loaded with bulk grain for shipment.

The remodeling of stock cars and the use of ore and coal gondola cars has naturally increased the opportunity for leakage and loss of grain in transit. If every shipper who has a brotherly interest in the welfare of his brother dealers would observe passing trains more vigilantly, we feel sure more cars would be reported for publication in our department devoted to "Leaking In Transit". These reports do not cost anyone very much time or labor but they do help the shipper to authenticate his loss and collect for the grain scattered along the railroad's right of way.

The condition of the box cars now in use is such that we feel certain more cars arrive at destination leaking badly, but we are receiving fewer reports of leaks than ever before. Keep your eyes open and write us what you see. Help to encourage rail carriers to place their box cars in better condition.

Curb Bureaucratic Rule

How would the operator of a grain elevator like to have the War Manpower Commission order him to dismiss one or more of his employees, with no appeal except to a tribunal set up by the Manpower Commission itself? Yet that is what the original draft of the Manpower bill provided. Virtually the same group of men who took away his workers would consider his appeal.

That this would set up a bureaucratic tyranny was discovered by the Senator from Oregon who asked that the appeal be made to a tribunal free from War Manpower control, pointing out that there is growing up in this country a trend toward administration of law by the executive branch of the government thru administrative officers whose opinions are not checked by the other branches. He correctly described this as a dangerous trend.

The Advantages of Daily Inspection

So many country elevators burst into flames a few hours after the plant is locked for the night, every operator is deeply interested in retiring with the complete satisfaction that his plant will be ready to run in the morning. Many careful investigations have shown smoldering fires to be a common affliction of plants which have been running continuously throughout the day. It should be the final daily duty of some interested party to investigate carefully every bearing throughout the plant before leaving for the night.

The heavy fire losses throughout the land during the last two months have been most alarming to elevator owners generally and this should interest all owners of elevators to give each one a careful looking over every night before leaving it alone in the dark. Few elevator owners have ever found sufficient return of fire loss adjustment funds to reimburse owner for actual loss of building and contents as well as the loss due to the suspension of business. At present it is most difficult to obtain either materials or men to place elevator or feed mill in position to resume business. The oftener any person directly interested in elevator property inspects it for known fire hazards, the sooner will the safety of the property be materially improved. Vigilant operators who are convinced that every bearing always has been carefully lubricated yet inspects each bearing, will soon discover an alarming number of hot boxes. And he will always exercise greater vigilance in keeping all bearings well oiled. Those who have long made it their practice to look over the plant every night before closing have discovered enough threatening hazards to justify more frequent inspections and thereby he improves the safety of his plant.

War and Wheat Prices

The popular belief that wars raise the prices of grains is supported by history. It is also true that after wars prices have fallen.

The Crimean war of 1854-1855 raised the price of U. S. wheat from \$1.11 to \$2.19 per bushel, dropping in 1858 to \$1.17.

The Civil war raised the price of wheat from \$1.29 in 1861 to \$2.85 per bushel, after which the price worked steadily downward to 57 cents in 1894.

The Spanish-American war caused a rise to 90 cents in 1898, subsiding to 72 cents thereafter.

The South African war and the China war raised the price in 1901, 1902 and 1903 to \$1.02.

Austrian annexation of Bosnia and Herzegovina was followed by a rise to \$1.25 in 1908.

World war I started Aug. 1, 1914, at a low price of 96 cents per bushel for wheat in the United States, and 38 shillings per 480 lbs. in the United Kingdom. The rise in the United States was to \$2.58 per bushel and in the United Kingdom to 136 shillings per quarter.

The price in Chicago rose to \$3.50 per bushel in December, 1919, and January, 1920. Earlier, in May, 1917, it had been nearly as high, at \$3.45. For three years thereafter the price sagged, reaching a low of 96½ cents in July, 1923. By January, 1925, it had recovered to \$2.20½. The business depression ran the price down to the lowest in modern times, to 44½ cents in December, 1932. Every year thereafter, however, we had dollar wheat. In 1941 wheat went from 85 cents in February to \$1.28¼ in December. A year later the price had advanced to \$1.42¾ and in December, 1943, to \$1.74¾, for spot contract wheat.

Ever since the Office of Price Administration placed a ceiling on the price of wheat flour the price of wheat has failed to respond to demand and supply, and the great expansion of money in circulation. Reluctance of holders to part with wheat at the ceiling price has prevented some millers, at times, from obtaining supplies. Instead of raising the ceiling the government goes thru the fiction of holding the line, by paying millers a subsidy.

Stocks of wheat on farms and elsewhere in the United States on Jan. 1 as reported by the U.S.D.A. were larger than a year ago, at 834,740,000 bus. Altho stocks are large the price is near the highest on this war at the present time, the May future at Chicago making a high for the month of March at \$1.72¾ Mar. 14.

So much for the record of the past.

Wars affect the price of grains by drafting manpower from the farms, thus reducing the supply; and by depreciating the value of the medium of exchange thru issuance of paper money in fabulous amounts.

Both of these forces are now exerting their influence in the United States. Representatives of agriculture in Congress are putting a stop to taking the young men off the farms; but the acreage sown to spring wheat in 1945 will be reduced. Every week sees an increase reported in the per capita amount of money in circulation. As measured by the money in circulation the price of wheat should be several times what it is.

Leaking in Transit

Grain dealers can help shippers in the collection of claims for loss by reporting to Grain & Feed Journals Consolidated for free publication car initials, No., place, date and condition of car seen leaking grain in transit.

Recently we have received reports of the following leaking cars:

B & O 81630 passed thru Saunemin, Ill., on Wabash about 2 p.m., Mar. 12, leaking barley. Due to position leak could not be stopped.—M. B. Speece, mgr. Saunemin Elevator Co.

Just as a sky-rocket that never went up cannot fall, so a price of wheat prevented by a ceiling from rising cannot fall. If the ceilings are removed from the grains while inflationary forces are still with us the sky will be the limit and the drop in prices later correspondingly disastrous.

Western Grain Shippers Demand Cars from East

Representatives of all the western grain exchanges and grain dealers associations have joined in an appeal to the Interstate Commerce Commission for more box cars.

As forwarded from Kansas City Mar. 23 the shippers' statement reads as follows:

In many sections the movement of grain has been virtually stagnated. Country elevators have reduced their operations to a low point—many are closed down for lack of cars. On account of inability to get cars country elevators can not buy corn of high moisture content, and this indicates spoilage of a substantial part of last year's record corn production.

To add to these problems a great new crop is in the making. The planted acreage of winter wheat is 7 per cent greater than last year—an increase of over 3,000,000 acres. The condition of the growing crop is very good, indicating a yield of upwards of 800,000,000 bus. compared to 764,000,000 last year.

Eastern lines should be required to shift large numbers of empty box cars to western lines. A program of this kind now under way has, however, proved inadequate and ineffective. Since Feb. 16 a total of 25,000 cars have been moved back to western lines under an order of the Ass'n of American Railroads, but grain loadings in that period do not show any improvement.

Eastern lines are wrongfully using western lines' cars for their own loading. The loading of grain and grain products on eastern lines has shown no such decline as the western loading. Likewise their loading of merchandise and miscellaneous freight have held up well.

That eastern lines be required to deliver 2,500 empty box cars per day to their western connections until the present dislocation is corrected.

That such order, in addition to providing for delivery of empty cars to western lines, provide that 60 per cent of these cars be ordered to Missouri River crossings and at Minneapolis and points west thereof, including Oklahoma and Texas.

That southeastern lines be required to deliver 200 box cars daily to lines serving Oklahoma and Texas thru Memphis, Vicksburg, and New Orleans.

That any such order as herein requested be issued by the Interstate Commerce Commission as service orders. Orders of the Ass'n of American Railroads do not insure performance.

Officials of the Ass'n of American Railroad's comment on the appeal is that the shortage of cars is due to the severe winter which tied up thousands of cars in the East.

A spokesman for the Office of Defense Transportation said freight cars were 600,000 fewer than during World War I, with more freight to be moved, creating an insoluble problem.

The Interstate Commerce Commission said the situation is one which cannot be remedied "simply by issuing orders," and added that the real problem is "just a plain lack of equipment."

Back of this lack of equipment is the neglect by the authorities at Washington to give the railroads a priority on materials and manpower.

Deferment for Grain Elevator Operators

Under Selective Service regulations the War Food Administration now may certify for deferment, in certain industries, thirty per cent of men under 30 who were in 2-A or 2-B on Jan. 1, 1945. The industries listed are largely processors of agricultural products, including grain products and bakeries; but the certifying officer of W.F.A. has informed the Grain & Feed Dealers' National Ass'n that the same regulations apply to country and terminal grain elevators. Operators wishing to obtain these deferments for their men must initiate requests with the district W.F.A. representative.

Brokers Not Employees

Judge M. M. Joyce of the U. S. District Court at Minneapolis, Minn., recently decided in favor of the Cannon Valley Milling Co. in a suit brought to recover from the Internal Revenue Department money paid under protest as social security taxes on brokerage fees.

The court held that brokers are not employees of a company and therefore are not subject to social security taxes.

Had the collector of internal revenue been successful in his contention, the collectors in other districts in all probability would have begun the collection of social security taxes on brokers.

Brokerage fees are usually small, but the Cannon Valley Company had been paying for a considerable time until a large sum of money was involved.

Lend-Lease Shipments Not Entitled to Land Grant Rates

In the first case of the kind Judge Sterling Hytcheson of the U. S. District Court at Norfolk, Va., decided Mar. 27 that lend lease shipments of civilian goods are not subject to the reduced land grant rates.

The Seaboard Railway in 1941 objected to the deduction of 50 per cent from the bill of freight for a shipment of phosphate rock consigned to the British Ministry of Transport, arguing that the phosphate was intended for civilian use in England, and not for military and naval use as specified in the land grant act.

The Government plans an appeal claiming the shipment was a part of the war effort.

If the decision is sustained the railroads will have a claim for undercharges on thousands of shipments amounting to many millions of dollars, against either the Government or the shippers who may have been beneficiaries of the reduced rate.

Award for Temporary Disability

The Supreme Court of Idaho on Nov. 2, 1944, decided in favor of General Mills, Inc., and the Travelers Indemnity Co. and against David R. Clark, who claimed compensation on the ground that his total disability resulted from an explosion in the grain elevator at Iona, Idaho, Feb. 24, 1942. The Industrial Accident Board of Idaho awarded compensation for total temporary disability and for reimbursement for hospital expenses.

The Board found that for years prior to the accident of Feb. 24 claimant was suffering from a toxic condition of his thyroid gland. He had an exophthalmic goiter and a degenerative condition of the heart muscles, varicose veins in both legs.

He drove to the elevator at 9 a. m., went into the office, opened the till, looked around and as he was about to pass thru an inside door leading to the scale room there was an explosion which injured the claimant and caused the burning of the place. He was knocked out of the building, was taken home and to a hospital at Idaho Falls where he remained until Mar. 2. He was again hospitalized and treated until Mar. 26 and a third time and until June 20 he was hospitalized for conditions not resulting from the injuries, described as neuritis.

The Board found that on Mar. 26 he had completely recovered from the injuries. He has not been able to engage in any employment requiring exertion since Mar. 26. He had had the goiter for 20 or 25 years.

Two doctors testified that the increase in Clark's symptoms was due to worry over charges of forgery and arson. The court held his disability did not result from the accident, but is due to numerous diseases with which he was affected prior to the accidental injuries.—152 Pac. Rep. 895.

Asked — Answered

[Readers desiring trade information should send query for free publication here. The experience of brother dealers is most helpful. Replies to queries are solicited.]

Where Obtain Weed Killer?

Grain & Feed Journals: We noticed an article in your last issue about a new weed killer known as 2-4-D. Is it being manufactured commercially, and where can it be obtained?—Cassidy Grain Co., Frederick, Okla.

Answer: This weed killer is a discovery of Franklin D. Jones of the American Chemical Paint Co., Ambler, Pa. By some it is sold as "Weedone."

Commission for Selling Loan Wheat?

Grain & Feed Journals: We shipped wheat to the terminal market to be put on store for a Government loan. When this was put in store the commission firm charged 1½¢ for commission and when we sold it out he charged the same. Is he permitted to charge 1½¢ each way for commission?—Hieronymus Bros., Winchester, Ill.

Answer: At the commission rate of one per cent the first charge of one and one-half cents per bushel is correct.

For selling warehouse receipts covering grain in store in Chicago Rule No. 230 of the Board of Trade specifies a charge of three-eighths of one cent per bushel; but this is a minimum charge, and the commission firm can charge more.

How Much Oats in Car?

Grain & Feed Journals: What quantity of oats could be loaded into a car measuring 40 ft., 6 ins. long, 8 ft., 6 ins. wide and 8 ft. 7 ins. high, loaded to within 18 ins. of the roof? According to the Railway Equipment Register this car would contain 2,965 cubic feet.—Uhlmann Grain Co., country elevator department, Kansas City, Mo.

Ans.: Deducting 1 ft. 6 ins. from the height we have a depth of 7 ft. 1 in. of grain, which on a floor area of 344.25 sq. ft. gives us 243.8425 cu. ft. At 2,150.42 cu. in. to the bushel and 1728 cu. in. to the cubic foot, we have a content of 1959.4 bushels of oats, theoretically.

Practically, however, a number of variables enter the problem. The principal variable is the test weight per bushel. Also, in traveling in a car from point of origin to destination, the oats will pack as much as 5 per cent.

It is a fact ascertained by the Weighing Department of the Chicago Board of Trade that 32 pounds of oats testing 27.5 pounds to the bushel in the testing kettle are equal to one bushel of space. One foot deep on the floor area of the car, at 0.8 per cubic foot would contain 275.4 bushels, and 7 feet would contain 1927.8 bushels, plus 22 pounds for the inch, equals a total of 1595.8 bushels, very close to that calculated theoretically.

Several years ago H. A. Juneau, State Weighmaster at Superior, Wis., worked out a chart form of table to show the weight of one inch depth of grain in every size car and for any test weight so the weighmen could check the weight with the measurement as fast as cars were set for unloading.

Convert Hemp Plants to Corn Drying

When the Japs took the Philippines and cut off the supply of hemp from Manila the United States Government built 42 plants to manufacture hemp in this country. As a part of their equipment the hemp plants had driers.

The W.F.A. and the R.F.C. announced Mar. 27 that several hemp plants in Minnesota had started on corn drying.

In a test run on 800 bus. of 35 per cent moisture corn worth 10 cents a bushel, the cost of drying was 6 to 10 cents per bushel, and the corn had a sale value of 90 cents per bushel. One plant will handle 4,000 to 6,000 bus. per day.

Minnesota, Iowa and Illinois each have 11 hemp plants, Wisconsin 6, Indiana 2, and Kentucky 1.

Setting Aside Beans

Pinto beans have been removed from the list of beans to be set aside. In group 1, composed of pea, Great Northern, small white, and flat small white 35 per cent is set aside; in group 3, baby lima, 60 per cent; in group 4, pink, small red, 100 per cent, and in group 2, red kidney (light, dark and western), 300 per cent. (300 per cent means that country shippers are required to set aside three 100-lb. bags for every bag sold into civilian channels.)

Questions and Answers

Q—What deliveries to country shippers may be credited against set-aside requirements?

A—Groups 1, 2 or 3 beans delivered to country shippers may be credited if the country shipper issues a certificate stating that they are for redelivery to the armed services or authorized purchasers. (2) Groups 4 beans may be so credited if the country shipper issues a certificate stating that they are for redelivery to a governmental agency or authorized purchaser.

Q—If a country shipper obtains set-aside beans from another country shipper for use in fulfilling a governmental or authorized purchaser contract for which he issues the required certificate (WFO 45, Amend. 5, Sec. (c)) may he report such beans under item 8 of his monthly report as a set-aside credit? A—No. Issuance of the required certificate entitles the shipper from whom the beans were obtained to the set-aside credit.

Q—Can beans of one of the set-aside groups be used to fill the set-aside requirement for beans of another set-aside group? A—No.

Q—Can beans of one class be substituted for beans of another class in the same set-aside group in meeting the set-aside requirements of the Order? A—Yes. Set-aside beans may consist of any class or classes within the group.

Q—May set-aside credit be taken for Pinto beans delivered to governmental agencies or authorized purchasers subsequent to Dec. 1, 1944? A—Only if the set-aside obligation against which the beans are delivered accrued prior to Dec. 1, 1944. In such cases credit will be given against the 40 per cent requirement then in effect.

Q—Is it necessary for a country shipper to report his end-of month inventory on each monthly report? A—Yes. A country shipper must report his end-of-the-month inventory in order to indicate that he is in compliance with the set-aside provisions of the Order.

Q—May beans in inventory of less than U. S. 2 grade, or uncleaned beans that will not grade U. S. No. 2 when processed, be considered to be set-aside beans? A—No. Par. (b) (2) specifies that all beans set aside must grade U. S. No. 2 or better. However, uncleaned beans that will grade U. S. No. 2 or better after processing may be included in the inventory in an amount equal to the quantity of beans of grade U. S. No. 2 or better which the dealer estimates will be processed from such uncleaned beans.

Q—Why is it essential for a country shipper to submit monthly reports promptly? A—Country shippers who do not submit their monthly reports on or before the 10th day of the following month are in non-compliance with the requirements of the Order. Furthermore, prompt receipt of reports enables the Order Administrator to perform his duties more effectively.

Q—Why is it essential to the country shipper to be in compliance with all provisions of WFO 45? A—The 1944 Bean Subsidy Agreement provides that dealers must be in compliance with all provisions of WFO 45 in order to be eligible to claim subsidy payments. Also, appropriate legal action may be taken for violation of the Order.

Q—To what governmental agencies shall country shippers offer set-aside beans? A—Set-aside beans in groups 1, 2 and 3, as provided in Amendment 7, shall be offered to the armed services, whereas set-aside beans in group 4 may be offered to any governmental agency, including the Commodity Credit Corporation.

Elected President for the Third Term

Every member of a central market grain exchange is honored when called upon by his fellow members to assume the duties and responsibilities of leadership. Some officers have promoted the interests of their market in such an outstanding manner as to win the approval of all members, but with a sacrifice of their own business welfare, hence few members have been willing to serve a second term as president even though earnestly urged by the members.

One man who seems to enjoy the trials and tribulations of an executive is P. R. Markley, who is now serving the Commercial Exchange of Philadelphia as president for a third term. Mr. Markley has been in the grain business in Philadelphia since 1903 when he formed a partnership with J. B. Pultz.

That partnership was dissolved by the death of Mr. Pultz in 1926. Since then Mr. Markley has continued the business in his own name serving as receivers, shippers and handlers of cash and futures. He also merchandises grain and handles export shipments on a forwarding basis.

TESTS for enrichment of flour now can be made by a new and easy method using aniline dissolved in alcohol and cyanogen bromide in water.



P. R. Markley, Philadelphia, Pa.

Letters from the Trade

[The grain dealers' forum for the discussion of grain trade problems, practices and needed reform or improvements. Dealers having anything to say of interest to members of the grain trade are urged to send it to the Journals for publication.]

Ten Cars Only on 700 Orders

Grain & Feed Journals: The car shortage is one of the worst things we have had here for a long time. There are over 700 grain car orders on this line and the railroad is only furnishing about 10 cars a week. We have a wonderful prospect for a crop of wheat with the acreage about the same as last year. Early sown oats all up and look fine. Alfalfa made a wonderful start.—The Dow Grain Co., Harold C. Dow, Mt. Hope, Kan.

Reduce Tax to Encourage Storage

Grain & Feed Journals: We learned from your Journals for March 14th that the state of Michigan, following the example of Kansas, has reduced the annual tax on grain in store within the state, thereby encouraging holding after March but increasing the tax receipts from grain produced in the state. As I visualize the working of such a law, it would naturally discourage farmers from marketing all of their grain before April 1st following harvest and thereby depressing their own market by flooding central markets. If this proves to be advantageous for grain merchants and grain growers in Michigan and Kansas then it should be an easy matter to secure the enactment of such a tax law in every state. Rushing grain to market immediately it is harvested always has helped to depress its market value.—John Hale, Specia, Ill.

Michigan's new law providing a specific tax for grain is entitled a law to provide for the imposition and collection of a specific tax upon the ownership and possession of grain, as defined herein; to provide for the disposition of the revenue derived therefrom; to provide certain exemptions; to prescribe penalties; and to repeal all acts and parts of acts inconsistent with the provisions of this act.

THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

Section 1. The term "grain" as used in this act includes wheat, oats, corn, rye, barley, buckwheat, flax, soybeans, dry edible beans and field peas, in their natural state, or when hulled, cleaned, dried, graded or polished, when owned or held by dealers, processors or warehousemen, but excludes such grain when owned or held for seed purposes.

Sec. 2. For the calendar year 1945, and for each year thereafter, there shall be imposed and collected a specific tax upon the ownership and possession of all grain situated in this state, except as otherwise provided in this act, at the rate of 2 mills for each 100 pounds or major fraction thereof.

Sec. 3. Such specific tax shall be determined each year by the assessing officer of the township or city in which any such grain shall be situated, and shall be an obligation of the owner, if known, and also of the person in possession, if not the owner, jointly and severally. The taxable status of persons and grain shall be determined as of the first day of April except in cities where a different date is fixed by charter for the assessment of personal property for general taxation, and in such cities the taxable status shall be determined as of the date so fixed by charter, and such date shall be the tax day.

Sec. 4. Any person owning, or having possession of any grain subject to tax under this act on the tax day, as hereinbefore fixed, in any year, shall deliver to the assessing officer of the township or city in which such grain is situated, within 15 days after such tax day, a

true and correct written statement under oath, of the kind and quantity of such grain owned or possessed by him.

How to Get Box Cars

Grain & Feed Journals: The current critical car shortage continues to be the paramount problem of country elevators. This office is in daily contact with representatives of ODT and the Association of American Railroads, but we have no assurance of anything more than partial relief.

Your attention is called to ODT Service Order 244 which directs the distribution of cars between elevators in times of car shortage. The order became effective Feb. 26, 1945 with an expiration date of Mar. 1, 1946. The order provides that no common carrier shall furnish cars to any shipper of grain unless the shipper advises the carrier's agent daily of the quantity of grain on hand available for prompt loading on a subsequent day or days and files an order for cars showing the (a) date of order, (b) number of cars wanted, (c) whether car is for bulk or sacked grain, (d) destinations, (e) date wanted to load, (f) quantity of each kind of grain on hand and conveniently located for prompt loading tendered for rail shipment, and (g) name of shipper.

From such reports and orders each carrier will determine the relative requirements of its several shippers and the carrier is required to distribute available cars among such shippers in proportion to such relative requirements. When an elevator becomes blocked it is entitled to the first car furnished. An elevator is considered blocked when filled to 90% of its rated capacity and when the carrier's agent is notified in writing to that effect. To protect its interests each elevator should observe the requirements of this order.—Lawrence Farlow Sec'y Farmers Elevator Ass'n of Illinois.

FOOD and farm products delivered to the Government during February amounted to 933,491,352 lbs., of which 80 per cent went to allied nations under lend-lease. Britain received 53 per cent and Russia 33 per cent. The grain export total was 236,672,858 lbs.

Juniata Farmers Elevator Takes a Ride

The Juniata Farmers Co-operative Ass'n has completed removal of its 20,000-bu. cribbed elevator that was located on the Missouri-Pacific Railroad trackage to a site near its elevator on the C. B. & Q., made necessary by the M.P. abandoning its road thru Juniata.

The elevator covered about one-half mile in its trip from the east to the west side of town, and the 20 x 30 ft. and 53.5 ft. high structure, weighing between 65 tons, attracted considerable attention from all persons of the community as it was trundled down the road to its new home.

"The elevator could have been brought from its old site to the new location in an hour if it hadn't been for the 20 different sets of telephone and electric wires that had to be removed to let it pass," J. L. Burt, manager of Juniata Farmers Co-operative Ass'n, stated. "Instead, it was about three hours getting there." Joe H. Johnson had the moving job. By change of location, the elevator will be operated by the company in conjunction with its other house.

A Permit to Haul Wheat

By F. S. REXFORD

A novel "Permit to Haul Wheat" card is being issued to wheat growers in the vicinity of Spearville, Kans., by the Farmers Grain & Supply Co., Elevators in the Spearville territory are full of wheat so permits to haul in more are issued only when an empty box is received to load out wheat. It is estimated that at least one million bushels of the 1944 crop is still held by farmers who usually haul to the Farmers Grain & Supply Co.'s elevator.

The postal card bears the message, "This card will permit you to deliver not to exceed 100 bus of wheat to our elevator within three days after date of card, or on a later date by special arrangement."

The plan is designed to give all growers an equal opportunity to market the 1944 crop, until the chronic box car famine is relieved.

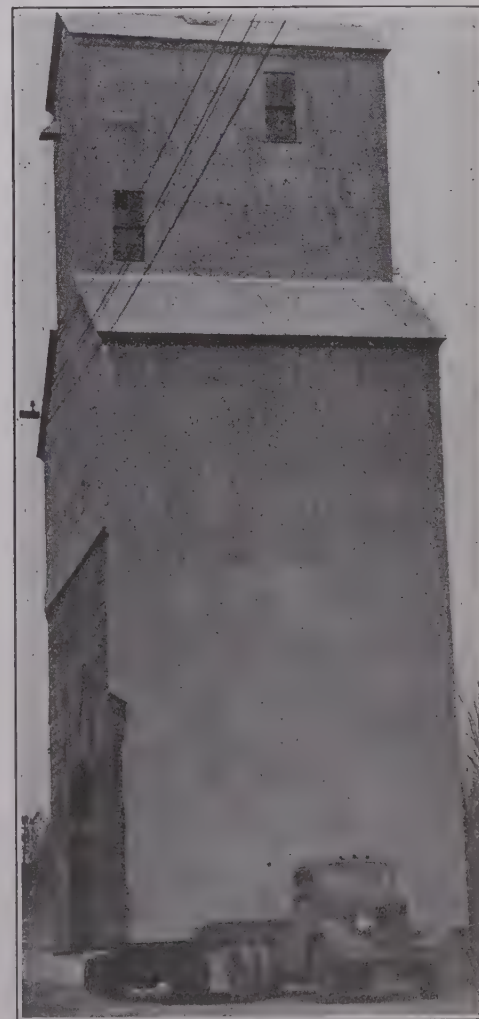
C.C.C. to Make Loan Wheat Available

The Commodity Credit Corporation is reported to have a new program to move loan wheat stocks into position to meet requirements of lend-lease, the military and feed.

The wheat so shifted is to be paid for May 31.

The C.C.C. also intends to clean out wheat held under the 1944 wheat loan purchase program, where these loans at maturity would exceed O.P.A. ceiling prices.

Warehouse stocks of wheat in terminals are to be moved by the C.C.C. to points where future demand is foreseen.



Juniata Farmers Co-op. Elevator Enroute to New Site.

Washington News

THE CEILING on imports of tapioca flour was raised Mar. 12 0.8 to 1 cent a pound, by the O.P.A.

PAYMENTS on seed from certain legumes are provided for in H.R. 2175, appropriating \$15,000,000.

THE HOUSE has approved continuation of the investigation of marketing conditions first authorized two years ago.

THE R.F.C. has informed Congress that it will require \$1,488,000,000 to carry on subsidies during the next fiscal year.

THE WAR LABOR Board has authorized regional boards to approve requested increases in pay of 5 cents an hour to 55 cents.

WM. H. DAVIS, chairman of the War Labor Board, has been appointed to succeed Fred Vinson as economic stabilization director.

EXPORT SALES of flour under the wheat flour export program, up to Mar. 2, amounted to 330,248,414 lbs., of which 200,851,320 lbs. were to Cuba.

FRED M. VINSON has been appointed head of the Federal Loan Administration, which includes the R.F.C. He has been economic stabilization director.

AUTHORITY to dictate the number of workers in every business establishment is granted the war manpower commission in a bill passed Mar. 8 by the Senate.

PARITY would be computed on a new basis under the bill, H.R. 2387, by Hagen of Minnesota, to take in the cost of farm labor and to make the base period 1919-1929.

THE WHOLESALE and retail food distribution industry is not one of the classifications in which the W.F.A. may defer a limited number of men under 30 years of age from military services.

DEPOSITS in 5,631 national banks increased nearly 12 billion dollars in 1944 to reach a total of 72 billion 129 millions on Dec. 30, the treasury department announced Mar. 5. Who is to blame for this inflation?

FARMERS may now shift entirely from the production of cotton and wheat to the production of designated war crops without fear of losing their acreage allotments for cotton and wheat. Recently enacted legislation protects the allotments of cotton and wheat producers in cases where war-crop production has upset the farm's normal production of either crop.

THE WAR FOOD Administration has limited government price supports on the 1945 crop of dry edible peas to actual production from the goal acreage. The government will purchase only the amount produced on the goal acreage less the amount sold for seed and civilian consumption. Each processor or dealer who sells to CCC must certify that: (1) peas included in the sale are eligible for price support; (2) all of the peas purchased by him, whether sold or held for later sale on the civilian market or for seed, are eligible for price support; (3) all of peas purchased by him which are not eligible for price support have been or will be sold for use as feed for poultry or livestock.

LEO CROWLEY is chairman of a new committee created by Jas. F. Byrnes, war mobilizer, to divide the production of industry so that civilians will get their share. It is to be understood that no agency of the government may enter into formal or informal commitments for the export of supplies other than for essential military purposes such as direct lend-lease and supplies in the wake of battle, to foreign countries, without first receiving the approval of this committee. Our foreign commitments must not be allowed to disrupt our own economy to such an extent that its capabilities to meet its own needs as well as the needs of others will be reduced, said Mr. Byrnes.

THE C.C.C. will be extended for two years from June 30 by a vote of 359 to 8 in the House Mar. 12. Its borrowing power is increased to \$5,000,000,000 from \$3,000,000,000.

JAS. F. BROWNLEE, deputy O.P.A. administrator, said Mar. 11 that wholesalers and retailers will be permitted to pass increases on to consumers only if this is necessary. 1. To permit an industry as a whole to maintain its earnings at peace time levels, or; 2. To prevent the margin on a particular commodity from falling below the trade's operating expense rate.

THE NATIONAL Labor Relations Act was criticized by three judges of the federal court at St. Paul, Minn., Mar. 6, for permitting employees to ignore the Act while forcing employers to comply, declaring that no legal power exists for the courts to interfere with the right to strike. The decision was given in a jurisdictional fight between two rival unions of brewery workers.

Flaxseed Support Price

The War Food Administration Mar. 26 announced the flaxseed price support program for 1945, higher than last year by 5 cents in the Northwest and by 20 cents in California.

The base support price for No. 1 flaxseed of the 1945 crop is as follows, with No. 2 five cents lower:

At Minneapolis and Red Wing, Minn., Milwaukee, Chicago and Portland, Ore., \$3 a bushel.

Los Angeles and San Francisco, \$3.20.

Emporia or Fredonia, Kan., \$2.85.

Corpus Christi, Harlingen and Houston, Tex., \$2.80.

Loans on flax stored in terminal warehouses will be available to farmers at these support prices.

In country elevators loans on flaxseed will be made to growers at county loan rates based on the terminal support price, less handling charges and freight, including tax.

Farm stored flaxseed will be allowed an advance of 7 cents per bushel for storage.

The A.A.A. will pay co-operating flaxseed growers \$5 an acre.

Dust Explosions of 1944

Jan. 14. Blakely, Ore. Dust explosion blew out windows and doors of the grain elevator of S. R. Thompson. Spark from extension cord used in the pit by man who suffered burns ignited the dust.

Feb. 18. Kansas City, Mo. Dust explosion in elevator of Commander Larabee Milling Co. killed four men, injured 25 others and did heavy damage to the working house. Loss several hundred thousand dollars.

May 19. Superior, Wis. Elevator S, operated by Archer-Daniels-Midland Co., had a hole 40x50 ft. blown in the wall of the cupola. Fire followed. Loss, \$50,000.

July 8. Midland, Ont. A blast on the bin floor where men were sweeping killed 6 men in the Aberdeen Elevator. Little damage beyond burning of conveyor belt.

Aug. 18. Hopkins, Minn. Roof was blown off the elevator of the Pioneer Elevator & Lumber Co. Fire following made a total loss, of \$35,000.

Sept. 12. Bountiful, Utah. Dust explosion and fire destroyed elevator and mill of Smith Milling Co. Loss, \$5,000.

Dec. —. Clay Center, Kan. One end of wheat warehouse of Marshall Feed & Grain Co. was blown out by dust explosion.

The year 1945 has so far had one dust explosion, Feb. 25, in a warehouse and milling annex of the Ralston Purina Co.'s main elevator, originating in a soybean drying bin. Loss, \$37,000.

Supply Trade

BY AMENDMENT to L-341 the W.P.B. will give electric motor users advance authorizations to purchase for two quarters, instead of one.

CHICAGO, ILL.—Link-Belt Co. reports net sales of \$74,489,005, in 1944, against, \$73,042,421 in 1943. Net income was \$2,291,760, against \$2,434,410.

DES MOINES, IA.—The Iowa Timber Production War Project has set a quota of 60,000,000 board feet of lumber from the state's 1,100 sawmills for 1945.

MILWAUKEE, WIS.—Sales of the Allis-Chalmers Co. in 1944 were \$379,485,631, compared with \$295,996,435 in 1943. Net income was \$9,327,616, against \$8,006,369.

MONTREAL, QUE.—Richardson Agencies, Ltd., of Toronto, has established a branch office in the Confederation Bldg., in charge of Wm. T. Rodda, to handle grain processing equipment.

CHICAGO, ILL.—The Ever Ready Poultry Feeding Equipment Co. has been incorporated with \$20,000 capital stock by E. Kaplan, I. L. Kruger and Elaine Flaxman, to manufacture and deal in supplies for hatcheries and poultry dealers.

SCHENECTADY, N. Y.—Net sales of the General Electric Co. were \$1,353,012,132 in 1944, against \$1,288,431,590 in 1943. Net income was \$50,845,719, against \$44,922,846. Income from other than sales amounted to \$17,123,117, against \$11,447,208.

SAGINAW, MICH.—Walter O. Sustins, advertising manager for A. T. Ferrell & Co., passed away Feb. 23, after an illness of two months. He was a graduate of the University of Wisconsin, coming to Saginaw in 1912. Later he was employed by the Sommers Bros. Appliance Co.

MINNEAPOLIS, MINN.—Construction of the new, block long factory of the Superior Separator Co. has been halted temporarily by diversion of material and labor to war plants. The building will be used to build a complete line of grain and seed cleaning and grading machines. The company's non-military production now is three times what it was in 1939.

DETROIT, MICH.—The Truscon Laboratories, Inc., are charged by the Federal Trade Commission with misrepresenting the effectiveness of its waterproofing compounds, that Truscon Por-Lox creates a permanent waterproofing condition in the concrete, brick or stucco structures in which it is used. The Commission declares that no products or materials have been developed which are capable of coping with all forms of seepage above and below grade.

HOWELL, MICH.—Leroy F. Keely has been appointed general sales manager of the Howell Electric Motors Co. Mr. Keely is a graduate of the electrical engineering school of Michigan State College. Subsequently at the Mellon Institute he did special research and development work on insulation problems as applied to electric motors. He has spent more than 20 years in the development, sales and application of electric motors in all sections of the country.

"THE GROWTH of the steel industry in this country illustrates the operation of competitive free enterprise under normal conditions. Men of vision and courage saw the possibilities of the future. They staked their belongings to establish this basic industry. Many failed, but the collective efforts of these pioneers have brought forth in this nation the mightiest and most modern steel mills in the world."—Irving S. Olds, Chairman of the Board of Directors, U. S. Steel Corpn.

European Corn Borer Enters Minnesota

By T. L. AAMODT, Minn. Agr. Exp. Station

Altho European corn borer scouting has been carried on in Minnesota since 1940, the first specimen was collected in Houston County near Eitzen in September, 1943. Now the borer has spread to the north as far as Ramsey County and as far west as Martin County. Other counties known to be infested include: Fillmore, Wabasha, Olmsted, Goodhue, Mower, Dodge, Dakota, Rice, Winona, Steele, Freeborn, Faribault, Waseca, Le Sueur, and Washington.

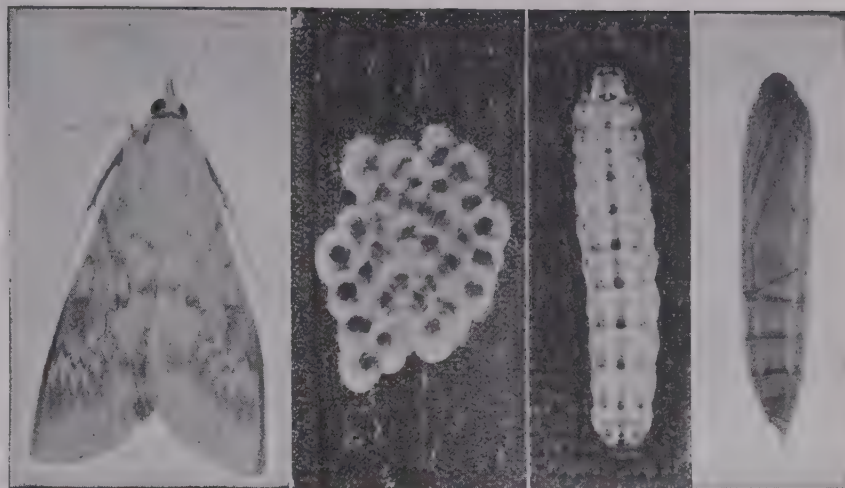
So far, only two Minnesota counties, Houston and Fillmore, have been heavily enough infested to warrant surveys of abundance. Examination of representative fields in 1944 showed that in Houston County 12.8 per cent of the corn plants were infested, averaging 1.4 borers per infested plant; while in Fillmore County 5.6 per cent of the plants were infested, averaging 1.1 borers per infested plant. Ordinarily no noticeable damage occurs, except possibly in sweet corn, until about five borers per plant are present.

No visible economic damage has yet occurred to corn in Minnesota.

In 1943 losses in nearby states were: Indiana, 78 counties, \$11,510,883; Illinois, 41 counties, \$6,599,531; Iowa, 20 counties, \$607,206; Michigan, 14 counties, \$563,017; and Wisconsin, 9 counties, \$90,613.

DESCRIPTION.—The full-grown European corn borer larva is nearly an inch long and one-eighth of an inch thick, with a dark brown or black head—the color of the body ranging from light to dark brown to pink. The upper surface of each division of the body bears a row of small dark brown spots, while the underside of the body is flesh colored and free of markings. The moths have a wing expansion of about an inch and their general color is variable, ranging from pale yellow to light brown.

The full-grown larvae overwinter mainly in cornstalks, corncobs, and in weeds. Only fully matured caterpillars are sufficiently hardy to survive and overwinter in the northern areas. In May and early July these caterpillars transform to pupae or the resting stage, and in about two weeks the moths emerge. When the weather is cool with frequent light rainfalls, the moths may live for many weeks; however, the span of life of this stage usually varies



Four stages of the corn borer: the adult moth, egg cluster, full-grown larva or borer, and pupa—three times enlarged except the eggs which are almost 10 times life size.

from one to three weeks. Although close to 2,000 eggs have been laid by individuals, it is estimated that approximately 400 eggs is the average for a female. Eggs hatch in about a week, and after the young caterpillars have fed externally a short while they burrow into various parts of the plant, making tunnels as they feed and grow.

DAMAGE to corn by the European corn borer may appear in any part of the plant above the ground. The borer may tunnel in the cob and in the grain, often resulting in crooked or deformed ears. Feeding by the larva is often followed by molds. The main damage to corn is the tunneling of the stalks and earshanks. Heavily infested stalks sometimes are reduced to a mere shell.

CONTROL.—No single practice is known at this time that will control the European corn borer. Corn growers for the time being are urged to adopt as many of the measures recommended as possible and to cooperate in community control efforts.

Farmers living in the heavily infested corn borer areas of the United States and who have had many years' experience with the pest have learned to live with it and produce good crops of corn despite its presence. Farmers in Ohio who have consistently followed the practices outlined for control have commonly produced 60 to 80 bus. of corn per acre.

Gasoline Tax Increases Proposed in 15 States

Gasoline tax increases have been proposed in 30 bills introduced in 15 states. Seven state legislatures are considering new diesel fuel taxes or increases in existing taxes. Three states, Colorado, Idaho, and Ohio expressly state that the proposed increases are for the purpose of raising revenue to match federal aid funds. In 4 states temporary emergency taxes on motor fuels have been extended or made permanent. New York, Idaho, and South Dakota have the only introductions proposing decreased motor fuel taxes.

Anti-diversion constitutional amendments prohibiting diversion of highway user revenue have been introduced in 14 states. Anti-diversion legislation is under consideration in 7 states in a total of 9 bills. Legislatures of 8 states are considering a total of 16 bills which propose definite diversions of user revenues.

Guaranteed Prices in Canada

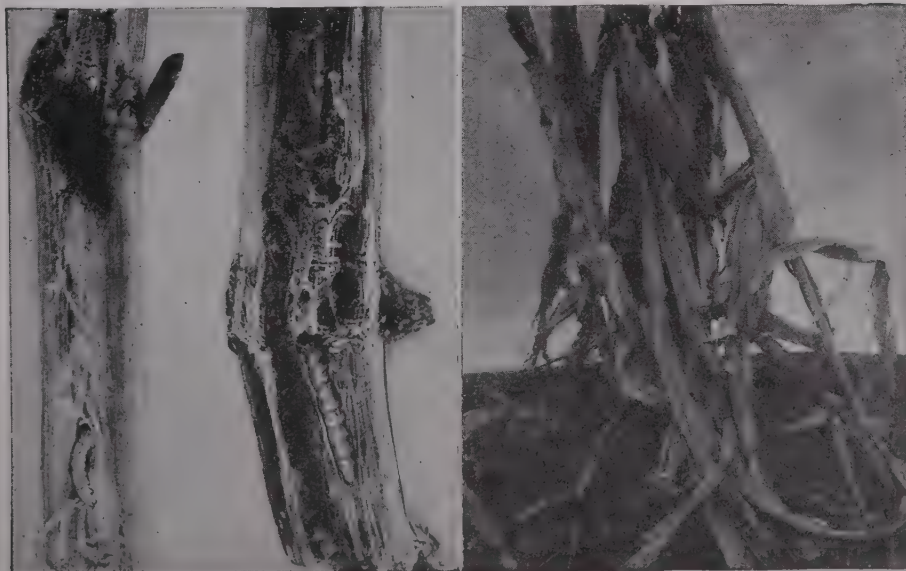
The Canadian Minister of Trade and Commerce states that the guaranteed price of \$1.25 per bushel would not be paid for more than an individual grower's quota of 14 bus. per authorized acre. The 14-bus. limit is to encourage feed grain production in 1945, rather than additional production of wheat.

The Dominion's existing program of guaranteed prices for oats and barley also will be continued during the 1945-46 season. That program guarantees minimum prices of 45 cents per bushel for oats and 60 cents per bushel for barley, basis top grades at Fort William-Port Arthur. In addition, advance equalization payments of 10 cents per bushel on oats and 15 cents per bushel on barley will again be paid at time of delivery. This, in effect, raises the guaranteed minimum prices for top grade grain to 55 cents for oats and 75 cents for barley.

The Dominion Government announced Mar. 8 that wheat diverted to the mutual aid program will be paid for by the government at the current commercial price of around \$1.46 a bu. less carrying charges, as against the current domestic fixed price of \$1.25. The growers are receiving \$1.25 from the Canadian Wheat Board, with participation certificates and will share on a pro rata basis in the higher returns.

Heretofore the Canadian government had paid for mutual aid wheat, which is wheat that goes to the British government, at the basis of the fixed minimum of \$1.25.

AREA of Production hearing was held Mar. 21 at New York by the Wage and Hour Division.



Corn borer damage. Left—larva tunneling thru cornstalks. Pupa, shown on outside of cornstalk at left, was lifted out of cavity. Right—broken cornstalks typical of corn-borer injury.

Crop Reports

Reports on the acreage, condition and yield of grain and field seeds are always welcome.

Kackley, Kan., Mar. 20.—Winter wheat is in excellent condition.—C. W. Bradshaw, Elevator.

Marienthal, Kan., Mar. 13.—New crop prospects best for some time at this time of the season.—Reuben A. Boulware.

Alvarado, Minn.—Here in the Red River Valley we are having ideal weather conditions, absolutely no snow left and the fields are drying fast, and if conditions continue as they are the farmers will be seeding the last days of March.—Farmers Co-op. Elvtr. Co.

Circleville, O., Mar. 24.—During the past ten days we have been over much of Ohio, and never have we seen a more perfect stand of wheat. There has been no winter kill, or abandonment. Fields look like well kept lawns. Plenty of moisture which enables the plant to take full advantage of the fertilizer. Any change in condition will be for the worse, as condition is 100 per cent.—R. P. Reid.

Emporia, Kan.—The Lyon County A. A. A. com'te is urging seeding of 3,800 acres of flax within the next month. The com'te is seeking at least 24,000 bus. of flax this year, if possible. This quota is Lyon County farmers' share of wartime needs for the oil producing crop, linseed oil and linseed meal. Last year, 2,971 acres were seeded, but much of the crop was sown late and yield was poor.—G. M. H.

Oklahoma City, Okla., Mar. 16.—The growing wheat crop in this section of the southwest is as good as it has been in any one year since the opening. There is an abundance of reserve moisture in the soil penetrating as deep as 7 ft. and with such a setting the state could hardly fall in producing another record crop of wheat. From what we can gather there is a marked increase in the acreage of wheat and should Oklahoma pull through with another big crop comparable to the yields of 1944 it isn't a bit too far fetched to say a possible crop of one hundred million bushels might be Oklahoma's contribution to keep the world from being ravished with hunger.—Winters Grain Co., A. B. Richert.

Minneapolis, Minn., Mar. 22.—All sections of the winter wheat producing areas report that the crop has survived the winter in excellent condition. It is still somewhat early, particularly in the northern states, to determine the amount of winter killing. It is now almost certain, however, that abandonment will be only a fraction of the 12 per cent sustained on last year's crop. Should the percentage of abandonment amount to 5 per cent about 47 million acres would be left for harvest in 1945, which would amount to over 6 million more acres for harvest than in 1944. The large acreage, combined with good conditions and adequate moisture, point the way to a record crop of winter wheat this year.—Cargill Crop Bulletin, T. J. Totushek, editor.

Decatur, Ill., Mar. 24.—Oats seeding is going ahead as rapidly as dry weather will permit; farmers are taking advantage of every hour possible for field work. A 12 per cent increase in oats to 3,661,000 acres is anticipated. Oats are particularly important as a nurse crop in new legume seedings, and the increase in acreage planned reflects a desire to build up clover acreage, it also reflects the manpower shortage. Fall sown grains and legumes have passed through the winter with little or no loss and appear to be in excellent condition. The acreage intended to be planted in corn is estimated at 8,875,000 acres, which is down 2 per cent from the 1944 planted acreage, but is 7 per cent larger than the 10-year average. A tremendous amount of work has been done and continues to be done to develop new varieties of hybrids and strains which will make farming more productive and more profitable, and less susceptible to losses from insects, plant diseases, and adverse weather. The acreage expected to be planted in soybeans for all purposes is estimated at 3,973,000 acres, 3 per cent larger than last year. Soybeans suffered relatively less from drouth and chinch bugs last summer and for this reason are replacing corn to a limited extent in the areas so effected.—Baldwin Elevator Co.

Chicago, Ill., Mar. 15.—Winter wheat prospects are uniformly good thruout the states served by the Rock Island Lines. The outlook is for another record winter wheat crop in 1945. With the large acreage and continuation of present favorable weather conditions, there is possibility that the 1945 winter wheat crop might become the largest in history. The total production of the 12 states served by the Rock Island Lines in 1944 was 461,878,000 bus. and the long range forecast for 1945 is for a winter wheat crop in excess of 500,000,000 bus.—The Chicago, Rock Island & Pacific Railway Co.

Fort Worth, Tex., Mar. 22.—With Texas wheat acreage of five million acres seeded last Fall, and no abandonment or winter killed, and with ideal conditions prevailing over the entire State, Texas may exceed last year's crop production. March 15th high winds brought heavy dust storms to some parts of the Panhandle section, but so far no damage reported. In Southwestern Oklahoma and around Vernon and Crowell, Tex., the wheat is from 10 days to 3 weeks earlier than normal, and many fields are jointing. Corn crop conditions, however, are the worst known in many years, as continual rains over the state not only prevented planting, but in many sections have prevented plowing, and at this time less than 50 per cent of the normal crop has been planted, and in some sections, especially in North Texas, none has been planted. Texas has planted a little more oats than normal, and the crop is excellent. There is a normal acreage in barley, which is in perfect condition. Heavy rains in South Texas have prevented seeding of grain sorghums, but other sections of the state will greatly increase average planted in grain sorghums and the state may plant as much as 40 per cent more than last year.—G. E. Blewett, Sec'y, Texas Grain & Feed Dealers Ass'n.

CORN in cribs is being dried in Fillmore County by machines intended to warm up airplane motors, made available to corn growers by the air base at Fairmont, Neb. The device has a one and one-half horse power gasoline engine, and air heater like those in automobiles, a fan and large hose to direct the heated air under the bottom of the crib.

C. C. C. Wheat Loans

Commodity Credit Corporation wheat loans and liquidations have been as follows recently and compared with a year ago:

	LOANS COMPLETED		LIQUIDATIONS	
	Number	Thous. Bus.	Thous. Bus.	Thous. Bus.
Feb. 28.	136,044	121,159	183,105	129,636
Mar. 10.	136,081	121,161	183,157	129,638
Mar. 17.	136,108	121,164	183,193	129,640

C. C. C. Corn Loans

Commodity Credit Corporation through Mar. 17, 1945, had completed 12,675 loans on 12,859,881 bus. of 1944 corn in the amount of \$11,498,129.20. The average amount advanced was 89.4 cents per bushel. On the same date last year 6,048 loans had been completed on 6,813,678 bus.

Loans by States follow:

States in which loans originated	No. of loans	Farm-stored (bushels)	Amount advanced
Illinois	328	392,904	\$ 371,537.24
Iowa	3,783	4,273,075	3,827,671.56
Kansas	202	217,939	197,126.98
Minnesota	629	480,039	432,204.59
Missouri	276	273,267	252,175.44
Nebraska	5,384	5,351,476	4,754,650.82
North Dakota	109	115,250	104,957.55
South Dakota	1,906	1,654,796	1,455,686.02
Total	12,675	12,859,881	\$11,498,129.20

Combined farm and warehouse loans outstanding on other 1944 loans programs:

Loans	Quantity	Amount
Barley	1,738	2,241,069 bus. \$1,885,830.82
Flaxseed	183	55,616 bus. 151,946.56
Grain		
Sorghums	4,668	7,589,056 bus. 7,123,373.76
Rye	72	44,470 bus. 33,359.13
Soybeans	123	72,225 bus. 150,434.79
Hay and Pasture Seed	2,476	31,912,768 lbs. 2,033,428.26

Spontaneous Heating of Grain

By SALLANS, SINCLAIR and LARMOUR
of Oil Seeds Laboratory,
University of Saskatchewan

Spontaneous heating in grain must be attributed to active proliferation of its microflora. If the moisture level is such that these organisms can grow, then heating will result. Confirmation of this hypothesis may also be drawn from the data on the hygroscopic equilibrium of sunflower seed, flaxseed, soybeans and wheat. From these data, if 14.5 per cent moisture is taken as the critical value for wheat, it is found that this corresponds to a relative humidity of approximately 74 per cent in the interstitial air in bulk wheat under equilibrium conditions at 25°C. If an estimate of the moisture content of sunflower seed, flaxseed, and soybeans is made, under these conditions, it is found that the values fall very close to the generally accepted limits set for the safe storage of these grains. Therefore, it would appear that the common critical factor in the phenomenon of the spontaneous heating of grains is the relative humidity of the interstitial air in the samples.

More specifically the fungus spores on the samples must reach a certain moisture content before they will germinate and grow, and this moisture level appears to be in equilibrium with air at a relative humidity of approximately 74 per cent.

The effect of temperature differential on moisture content has recently been studied by Anderson, Babbitt, and Meredith. From their results it is evident that, even though grain is stored at a moisture level that would normally preclude the possibility of heating, it would be possible to obtain regions in a bin where the moisture content would rise to dangerous levels and heating might occur. It is obviously impossible to study this possibility by means of the respiration technique and in the adiabatic method the samples are small and the temperature so uniform that convection currents are reduced to a minimum.

When uncleaned grain is spouted into a bin, the trash, being lighter than the grain, tends to collect in the near side of the bin. Commercial operators have observed that when heating occurs, it usually starts in this accumulation of trash and then spreads to the remaining sections of the bin. This may be due to greater infection in the trash, but it seems equally probable that it is related to the moisture content. It has been observed in this laboratory that uncleaned samples of sunflower seed usually have a higher moisture content than the same samples after cleaning. This indicates that the actual moisture level of the trash is higher than that of the grain itself.

The spreading thru the remainder of the bin could be explained on the basis of convection currents causing a redistribution of moisture. Furthermore, unpublished data obtained in this laboratory indicate that as active heating progresses there is an apparent increase in the moisture level of grain. This results partly from the loss of dry matter in the form of carbon dioxide without a compensating loss of moisture and also from the accumulation of moisture and volatile products produced by the respiration of the grain and its microflora.

It is, therefore, evident that once active heating starts in a localized portion of a bin convection currents and the production of moisture by the "heating" will result in a spread of the "hot spot."—Canadian Journal of Research.

CORN GROUND by 11 refineries in February aggregated 10,431,542 bus., against 10,623,810 bus. in February, 1943, as reported by the Corn Industries Research Foundation.

Diligence is the Mother of Good Luck

Grain Movement

Reports on the movement of grain from farm to country elevator and movement from interior points are always welcome.

Marienthal, Kan., Mar. 13.—Grain on farms, particularly milo, getting out of condition. Few grain cars available.—Reuben A. Boulware, Reuben A. Boulware Grain & Oil Supply Co.

Alvarado, Minn., Mar. 19.—Our elevators have been filled for the past month because of car shortage, but conditions seem to be the same thruout the whole country.—Farmers Co-op. Elevtr. Co.

Kackley, Kan., Mar. 20.—Still a large amount of corn to move, a lot of which is in the open to be moved before spring rains. There also is a large quantity of wheat to move before harvest.—C. W. Bradshaw, Elevator.

Woodworth, N. D., Mar. 19.—Roads in very bad condition; farmers can not haul grain and there is considerable grain to be hauled yet. Ground rather wet yet from last fall's rains.—Christ Neumann, Mgr., Peavey Elevators.

Fort Worth, Tex., Mar. 22.—Old crop grain sorghums is still moving in a limited way, and there seems to be a large amount on hand in the state stored on the farms, in country elevators and terminal elevators.—G. E. Blewett, Sec'y, Texas Grain & Feed Dealers Ass'n.

Oklahoma City, Okla., Mar. 16.—Cash wheat is very much in demand as all our mills seem to have extensive flour commitments. The car shortage is most acute as is the case elsewhere in the wheat belt.—Winters Grain Co., A. D. Richert.

Wilson, Kan., Mar. 23.—Joe Kyner, of B. W. Kyner's Elevator, is very busy lining three cattle cars for shipping wheat. Joe states that his elevators are full, no box cars for moving the wheat in sight, and a most promising new crop just around the corner. Grain men and farmers are worried about the marketing and storage outlook for the new crop.—W. H. C.

Ellsworth, Kan., Mar. 23.—Pat Nash, manager of Ellsworth County Farmers Co-op. Union overseeing shelling of corn, states this is the first time it has ever been necessary to pile corn on the ground in the spring in Ellsworth. However, the elevators are full of wheat and no box cars for moving either wheat or corn. There will be considerable loss on the corn, as much of it soured.—W. H. C.

Walla Walla, Wash.—Nearly a million bushels of wheat will be shipped from country warehouses and elevators in a short time, as the C. C. C. is taking over 950,000 bus. of Rex and hard winter wheat of the 1944 crop. This is grain held under its loan provisions. Action is being taken now to clear storage spaces for part of the 1945 crop, as little wheat has gone to coast terminals.—F. K. H.

Superior, Wis.—Duluth-Superior grain receipts and shipments during February, 1945, as compared to February, 1944, in bushels, 1944 shown in parentheses, were: Receipts, Wheat 505,725 (7,115,480); corn, 899,585 (—); oats 1,746,785 (1,298,470); rye, 2,035 (8,935); barley, 224,345 (274,660); flax, 40 (179,835); shipments, Wheat, 481,950 (5,606,780); corn, 426,540 (9,740); rye, 20,590 (240,215); barley, 557,040 (861,200); flax, 13,260 (18,325).—Wisconsin Grain & Warehouse Commission.

Duluth, Minn.—Arrivals of grain from country points continue light and the daily receipts listed mostly apply. Some sizeable lots of wheat have been sold to arrive when cars are available. Track offerings generally bring ceiling price. Oats are in demand but corn slackened lately with only a buyer or two in the market and very selective as to moisture. Any above 20 per cent is not wanted. They now have all of the damp corn on hand or arriving that drying plants can handle in the next several weeks. Good dry corn is in ready demand. Ordinarily at this time of the year before navigation starts grain piles up in elevators. Now faced with a tight car shortage the country movement has been reduced to just a mere trickle while shipping operations have exceeded receipts resulting in a sizeable decline in stocks of grain in store.—F. G. C.

Washington, D. C.—Export grain unloaded at the ports totaled 4,122 cars compared with 3,377 cars in February, 1944, or an increase of 22 per cent.—Ass'n of American Railroads.

Ottawa, Ont., Mar. 22.—The following quantities of wheat and coarse grain were delivered from farms in Western Canada the week ended Mar. 15 (expressed in bushels): Wheat, 3,474,730; oats, 3,012,923; barley, 517,190; rye, 77,346; flaxseed, 11,773; since August 1, 1944 as compared to the same period a year ago, shown in parentheses: Wheat, 266,466,027 (185,221,044); oats, 81,683,985 (78,285,051); barley, 66,804,709 (59,945,530); rye, 3,289,614 (3,766,500); flaxseed, 668,427 (13,855,269).—S. A. Cudmore, M. A., Dominion Statistician.

Peoria, Ill.—Records of the Peoria Board of Trade show that approximately 48,000,000 bus. of grain was received in the Peoria market for the year 1944. These receipts, in bushels, were divided as follows: Wheat 9,066,100, corn 31,127,900, oats 578,400, rye 1,448,000, soybeans 2,743,950, sorghum grains 1,773,200, and barley 848,000, a total of 47,585,550 bus. Due to shortages of some grains, processors at times were compelled to substitute grain products for grain. It is estimated that approximately 2,500,000 bus. of grain was displaced for this reason.

Russell, Kan., Mar. 24.—Thousands of bushels of corn are piled on the ground in Northwest Kansas, a drive thru Russell, Ellis, Trego, Phillips and Norton Counties disclosed. Thousands of acres, too, are yet unhusked, J. P. Ruppenthal of Russell reported. "Very good bogs, but only one bunch of cattle in the feed lot came to notice. In Phillips and Norton Counties very little wheat seen, but what had been planted looked all right. Good looking wheat along US-40 as far west as Wakeeney, and said to be just as good further west, too."—I. D. A.

Fort Worth, Tex., Mar. 22.—The scarcity of box cars has been felt keenly in Texas the last two weeks. Prior to Mar. 1 there wasn't much trouble in making shipments, but since then it has been very difficult to obtain cars, and many country stations report they are receiving less than 10 per cent of their requirements. Terminals such as Ft. Worth, Dallas and Amarillo are far behind in their shipments of C.C.C. wheat to export, as well as other commitments. On Jan. 1 the U. S. Dept. of Agriculture report showed one hundred million bushels of wheat in all positions in Oklahoma and Texas, which is far in excess of normal, and it is going to be a serious problem to get the wheat off the farms and out of the country elevators between now and time for the new crop to start moving.—G. E. Blewett, sec'y-treas., Texas Grain & Feed Dealers Ass'n.

From Abroad

ARGENTINE grain exporters will be required to pay 2 centavos per 100 kilograms of grain exported in 1945, in accordance with resolution No. 424 of the National Grain and Elevator Commission.

INDIA imported 800,000 tons of food grains, largely Australian wheat, during the 12-month period ended September 30, 1944, and another 300,000 tons were expected to arrive before the end of the year.

DENMARK'S 1944 WHEAT CROP was slightly above average, and about 55% larger than the small 1943 crop. Feed grain crops, however, are reported to have decreased to some extent, and are estimated to be about 5% less than in 1943.

C.C.C. 1944 Loan Rates

WHEAT, 90 per cent of parity, average \$1.35 per bushel at the farm, available until Dec. 31 on farm or warehouse stored.

CORN, farm stored, 90 per cent of parity as of Oct. 1, 1944, available from Dec. 1, 1944, to May 31, 1945.

RYE, 75c for No. 2 or No. 3, solely on test weight, on farm or in warehouse, until Dec. 31, 1944. Deduction of 7c on warehouse stored rye.

BARLEY, 90c per bushel for No. 1 on Pacific slope, 85c in other states, on farm or in warehouses. Deduction of 7c on warehouse stored.

SOYBEANS, \$2.04 per bu. to farmers for green and yellow of 1944 crop, No. 2 delivered to country elevators. Available to Jan. 31, 1945.

GRAIN SORGHUMS, on farm or in warehouse for No. 2, \$1 in Arizona and California, and 95c in other states.

FLAXSEED on farm or in warehouses at \$2.95 basis Minneapolis for No. 1, 25c less for No. 2, per bu., until Oct. 1, 1944, or Jan. 31, 1945.

Open Interest in Future Deliveries

As reported by the Compliance Branch of the Food Distribution Administration the open interest in all futures on the Chicago Board of Trade recently has been as follows, in 1000 bus.:

		Wheat	Barley	Oats	Rye	Corn
May	6.....	27,428	1,474	16,037	42,267
June	3.....	36,327	1,402	16,210	39,370
July	1.....	43,561	1,374	20,543	39,196
Aug.	5.....	48,559	1,789	25,365	39,820
Sept.	2.....	52,634	2,620	23,713	38,583
Oct.	7.....	47,183	3,178	23,489	39,355	9,467
Nov.	4.....	49,258	3,268	25,151	43,557	13,204
Nov.	10.....	49,435	3,301	24,918	43,967	14,307
Nov.	18.....	43,228	3,085	24,251	45,770	15,287
Nov.	25.....	47,718	2,930	24,065	45,261	16,716
Dec.	2.....	46,901	2,652	23,139	43,883	17,903
Dec.	9.....	47,053	2,566	22,958	43,648	21,227
Dec.	16.....	47,213	2,298	22,648	44,926	21,109
Dec.	23.....	46,515	1,442	20,218	43,000	20,764
Dec.	30.....	46,720	1,223	20,578	43,303	22,912
Jan.	6.....	45,150	1,191	20,438	43,901	23,078
Jan.	13.....	44,677	1,153	21,327	44,731	24,103
Jan.	20.....	45,146	1,028	20,866	44,810	24,256
Jan.	27.....	43,890	936	22,455	45,445	24,000
Feb.	3.....	43,248	986	22,267	46,378	24,288
Feb.	10.....	42,125	937	22,000	48,294	23,951
Feb.	17.....	41,624	962	22,421	48,967	23,729
Feb.	24.....	40,810	929	23,712	49,681	23,839
Mar.	3.....	42,135	868	23,637	51,332	24,469
Mar.	10.....	40,577	884	23,513	53,157	24,244
Mar.	17.....	40,003	901	22,853	52,847	24,056
Mar.	24.....	40,394	909	22,449	54,242	22,651

Parity and Farm Prices

PARITY

Date	Wheat	Corn	Oats	Rye	Barley	Soybeans
Oct. 15..	147.0	107.0	66.2	120.0	103.0	159.0
Nov. 15..	148.0	107.0	66.0	120.0	103.0	160.0
Dec. 15..	149.0	108.0	67.0	121.0	104.0	161.0
1944						
Jan. 15..	149.0	108.0	67.4	122.0	105.0	162.0
Feb. 15..	150.0	109.0	67.8	122.0	105.0	163.0
Mar. 15..	150.0	109.0	67.8	122.0	105.0	163.0
Apr. 15..	150.0	109.0	67.8	122.0	105.0	163.0
May 15..	150.0	109.0	67.8	122.0	105.0	163.0
June 15..	150.0	109.0	67.8	122.0	105.0	163.0
July 15..	150.0	109.0	67.8	122.0	105.0	163.0
Aug. 15..	150.0	109.0	67.8	122.0	105.0	163.0
Sept. 15..	150.0	109.0	67.8	122.0	105.0	163.0
Oct. 15..	150.0	109.0	67.8	122.0	105.0	163.0
Nov. 15..	151.0	110.0	68.2	123.0	106.0	164.0
Dec. 15..	151.0	110.0	68.2	123.0	106.0	164.0

1945

Jan. 15..	152.0	110.0	68.6	124.0	106.0	165.0
Feb. 15..	152.0	110.0	68.6	124.0	106.0	165.0

FARM PRICES

Date	Wheat	Corn	Oats	Rye	Barley	Soybeans
Oct. 15..	135.0	107.0	74.4	101.0	103.0	180.0
Nov. 15..	137.0	105.0	75.0	102.0	103.0	180.0
Dec. 15..	143.0	111.0	76.9	107.0	105.0	181.0
1944						
Jan. 15..	146.0	113.0	77.5	110.0	108.0	182.0
Feb. 15..	146.0	113.0	78.6	111.0	109.0	185.0
Mar. 15..	146.0	114.0	79.3	111.0	110.0	189.0
Apr. 15..	147.0	115.0	79.4	112.0	111.0	191.0
May 15..	147.0	115.0	79.9	111.0	113.0	193.0
June 15..	143.0	115.0	78.8	105.0	112.0	193.0
July 15..	139.0	117.0	76.4	107.0	110.0	191.0
Aug. 15..	135.0	117.0	70.8	108.0	103.0	190.0
Sept. 15..	135.0	116.0	64.2	102.0	95.3	193.0
Oct. 15..	142.0	113.0	65.9	108.0	95.4	204.0
Nov. 15..	143.0	106.0	66.2	108.0	96.0	205.0
Dec. 15..	145.0	106.0	69.4	106.0	98.2	205.0
1945						
Jan. 15..	146.0	107.0	72.1	109.0	102.0	206.0
Feb. 15..	147.0	106.0	73.3	108.0	102.0	210.0

Grain Carriers

SAULT STE. MARIE, MICH.—At 5 p.m., Mar. 25 the Sir Thomas Shaughnessy passed thru the Davis lock, in the second earliest opening on record.

BUFFALO, N. Y.—The Lower Lakes Grain Committee is planning to move 340,000,000 bus. of grain on the lakes during the 1945 season, against 292,000,000 bus. the past season.

MACKINAC, MICH.—Altho there are 12 miles of solid ice in the south channel, but with open water eastwardly from Mackinac Island steamships should be able to pass April 1.

GRAIN means barley, buckwheat, corn, sorghums, oats, rye, spelt, wheat, soybeans and flaxseed, according to the definition just put out by the I.C.C. in revised service order 244, governing distribution of box cars.

CHICAGO, ILL.—Officials of railroads in the Central Freight Ass'n will meet March 29 with grain elevator operators to work out rate schedules complying with the order of the Interstate Commerce Commission on grain exchange.

GRAIN and grain products loading during the week ended March 17 totaled 44,067 cars, an increase of 3,423 cars above the preceding week but a decrease of 891 cars below the corresponding week in 1944. In the western districts alone, grain and grain products loading for the week of March 17, totaled 28,822 cars, an increase of 1,870 cars above the preceding week but a decrease of 1,248 cars below the corresponding week in 1944, as reported by the Ass'n of American Railroads.

PERMIT AGENTS under W.F.O. for shipments of grain to Lakes Erie and Ontario will accept applications for permits starting April 1. At that time permit requests will be considered only for shipment ten days after opening of navigation. The permit must be requested by the shipper of the grain and at time of request, the following information must be furnished: The port where the grain will be loaded, name of vessel, approximate shipping date, kind and amount of grain, name of unloading elevator and approximate length of time the grain will stay in storage. Requests should be sent to R. E. Endress, or W. F. Gage, permit agents, 701 Chamber of Commerce bldg., Buffalo 2, N. Y.

Box Cars With Hoppers Not Satisfactory

The continued scarcity of box cars on the rail carriers of the surplus grain sections of the country has so handicapped grain shippers they have hastily loaded every kind of car in an effort to get some of their damp grain out and provide room for enormous surpluses back on the farms.

Ore gondola cars are being used in the spring wheat states, cattle and coal cars in the Southwest and much speculation has been indulged as to the practicability of providing box cars with hoppers bottoms in hope of expediting the unloading of grain and using them more of the time for transporting grain.

Many years ago the Canadian Pacific Railway Co., which transports more wheat every year than any other railroad in the world installed 100 box cars with hoppers bottoms, but they have not proved satisfactory as is shown by a letter under date of March 13, 1945 from H. J. Main, general superintendent of transportation for the C. P. R. R. at Montreal. He writes:

"The Canadian Pacific did build a number of cars with a small hopper between the car doors. This hopper, you will note, is not in any sense like the standard coal hopper car.

These hopper cars were not entirely satisfactory although they were in use for quite a number of years and the hoppers are now being removed as the cars go to shops.

"There was some difficulty due to leakage of grain from hoppers on account of the small steel hopper door under the car door being damaged or sprung.

"The principal objection was due to the fact that a section of the floor between the doors was hinged and opened up to form the grain door. When not in use handling grain traffic, this part of the floor became damaged and it was not sufficiently strong to handle the heavy trucks. Although it had a steel frame, this frame became damaged or warped."

Shipping Wheat in Cattle Cars

At its own expense and at a cost of \$100 per car the Rodney Milling Co., of McPherson, Kan., is having 18 cattle cars put in condition for hauling wheat.

The cars are lined with tar paper and then walls are built up solid on the inside with boards one inch thick and 12 in. wide. Better service is expected of these than of the 11 coal cars the company is using in a shuttle service between McPherson and Hutchinson. Floors of the coal cars are so rough more hand shoveling is required in unloading.

Repeated use of the cars during the continuing car shortage is expected to recoup the considerable cost of the alterations. The 18 cattle cars are owned by different railroads.

The Wall-Rogalsky Milling Co. also has adapted several cars for emergency use in hauling wheat from country stations to its mill at McPherson.

Stiff Demurrage Charges Reinstated

Effective Apr. 1 and until Oct. 1 the Interstate Commerce Commission has published Service Order No. 242 increasing demurrage charges on all closed box cars, as follows:

This order applying to box cars held for loading and unloading, whether on average agreement, or otherwise, provides, after the expiration of free time, for demurrage charges of:

\$2.20 per car per day or fraction thereof for the first two (2) days,

\$5.50 per car per day or fraction thereof for the third day,

\$11 per car per day or fraction thereof for the fourth day, and

\$16.50 per car per day or fraction thereof for each succeeding day.

On cars so held under the average agreement, the \$2.20 per day debit charge may be offset or reduced by the accrued credit as provided for in applicable demurrage tariffs; the \$5.50 per day, \$11 per day and \$16.50 per day charges

may not be offset or reduced by credits earned on other cars.

These provisions to apply on both interstate and intrastate traffic.

Using Gondola Cars for Shipping Wheat

McPherson, Kan.—The Rodney Milling Co. is using coal cars to haul wheat so that the mill can keep busy. The mill was unable to get box cars so uses coal cars with low sides and no tops. These gondolas hold about 1650 bus. of wheat. Although it is only a short haul from the terminal elevator in Hutchinson to the mill, the grain sometimes is exposed many hours between time of loading and unloading.—G. M. H.

Navigation to Open Early at Duluth

Duluth harbor is ice-coated but covering is soft and rapidly rotting. A coast guard cutter has been moving about both in the harbor and the lake without difficulty.

No ice is reported in eastern Lake Superior at Whitefish point.

Reports from the east are that boats will be started for western lake heads about Apr. 1. Officially the opening is Apr. 15, when insurance goes into effect.—F.G.C.

Trade Rule Amendment of G. & F. D. N. A.

Holders of printed copies of the trade rules of the Grain & Feed Dealers National Ass'n should add the following adopted Sept. 27, 1943, but inadvertently omitted:

"Rule 16. Change the title to read 'Invoice and Draft.' No change in the part of the rule now existing with reference to invoice. Add a new paragraph as follows: 'Unless otherwise agreed when a contract is made, it shall be understood that drafts are subject to payment immediately on presentation to the buyer or his designated agent.'"

EVEN THO the car shortage may keep terminal prices at ceiling levels for some time, an adjustment of prices toward a new crop basis is expected well in advance of the beginning of harvest. Some of the factors which will encourage this adjustment are: (1) Conditions favorable to another large crop of winter wheat. (2) Prospects of a larger carry-over of old wheat than a year earlier. (3) Possibility of delay and difficulty after May 1 in moving loan wheat delivered to the Commodity Credit Corporation. (4) Probability that wheat prices during the harvest period will be supported by loans rather than by open market purchases which would indicate prices below current levels. (5) Uncertainty about the continuation of the flour subsidy after June 30.—Kansas State College of Agriculture.



Canadian Pacific Box Cars with Hopper Bottoms Being Remodeled

Grain and Feed Trade News

Reports of new elevators, feed mills, improvements; changes in firms; fires, casualties, accidents and deaths are solicited.

ARKANSAS

Blytheville, Ark.—E. B. Woodson, a member of the Blytheville Soybean Corp., who has been active in civic and municipal affairs for several years, recently announced his candidacy for re-election as a member of the city council—P.J.P.

Tuckerman, Ark.—A specification sheet for a possible small industry received by Wesley H. Bengel, chairman of the Post War Planning Com'te of Jackson County, covers a small feed mill, the Industrial Com'te of the Arkansas Economic Council reported. The building would consist of a work room approximately 50x50 ft., with a storage space of 50x100 ft.

CALIFORNIA

Los Angeles, Cal.—G. R. Strickland, widely known grain broker and a member of the California Hay, Grain & Feed Dealers Ass'n and the Los Angeles Grain Exchange, having served several terms as a director of the latter organization, died unexpectedly March 7.

Sacramento, Cal.—A special com'te of the California Hay, Grain & Feed Dealers Ass'n met Feb. 26 with V. O. Wolcott, Chief of the Bureau of Field Crops, and Wm. L. Hunter, Supervising Feed Chemist, for a discussion of activities under the Commercial Feeding Stuffs Chapter of the Agricultural Code.

Fresno, Cal.—The board and chairmen of com'tes of the California Hay, Grain & Feed Dealers Ass'n will meet here April 20-21, to conduct essential business of the association. The annual convention of the association has been canceled this year, it was decided at a recent meeting of the board of directors.

East Los Angeles, Cal.—Pillsbury Flour Mills, Inc., will build a grain elevator here following the war, on a site in East Los Angeles near the Union Pacific railroad station the company has just purchased, Pres. Philip W. Pillsbury has announced. Construction of the elevator is one of the steps projected in Pillsbury's postwar planning in connection with its west coast division, Globe Mills.

Kerman, Cal.—The Miller Alfalfa Co., established here in 1944, and representing an investment of about \$90,000, is turning out its product at the rate a carload a day by a staff of 15 men, Winton Feller, in charge, stated. Mr. Feller estimates the ultimate production of the plant will be about four carloads a day, and stated enlargement allowing that figure is being held up only by the labor shortage.

Sacramento, Cal.—The revenues collected from the inspection tax have greatly expanded due to the increased production of feeds. There has been a decrease in the expenditures because of the decreased manpower, inability to secure equipment, and other factors. These two situations have combined to create a substantial surplus in the funds available for this service which is a general situation thruout the state government. The funds are protected from diversion by statutes limiting their use to the service.

CANADA

Toronto, Ont.—Henry D. Egly, formerly manager of the A. E. Staley Co.'s soybean plant at Richmond, O., U.S.A., is new president and managing director of Victory Mills, Ltd.

Walkerville, Ont.—The Hiram Walker, Ltd., grain terminal has been placed in operation and is receiving grain.

Toronto, Ont.—The name of Western Canada Flour Mills Co., Ltd., has been changed to Purity Flour Mills, Ltd. The company owns several large mills in Canada, with its head office here.

Toronto, Ont.—H. M. MacDiarmid has been appointed manager of the Toronto office of the Canadian Exporters Ass'n. The increase in membership has necessitated branch managers here and at Montreal.

Winnipeg, Man.—Rupert C. Reece was elected chairman of the Shippers & Exporters Ass'n of the Winnipeg Grain Exchange at the recent annual meeting. Henry Gauer was elected vice-chairman, and Geo. S. Mathieson, sec'y-treas. The executive includes K. A. Powell, C. Gordon Smith, W. H. Pope and W. J. Dowler.

Toronto, Ont.—John W. Ham has been named president and general manager of Frank B. Ham & Co., Ltd., grain and feed merchants, to succeed his father, the late Frank B. Ham, who died last September. John Ham became associated with the company in 1932 and three years later was appointed sec'y-treas. He took over active management of the business during his father's illness. The business was founded by his father in 1924, and engaged in both domestic and export business.

Vancouver, B. C.—A 10,000-ton freighter loading war cargo, including explosive material, at a dock about 200 yards distant from the 18-story Marine Building on the first floor of which is located the Vancouver Grain Exchange, blew up March 6; with a series of five explosions, wrecking all windows within a radius of 10 blocks. After the first detonation members of the Exchange rushed to the 10x6 ft. glass windows facing the waterfront, and were showered with broken glass as the four explosions quickly followed. Many were injured but none critically. A similar explosion in Halifax in World War I, when a ship was laden with dynamite, killed 1,600 persons. Exchange members are thankful they are still alive.

COLORADO

Denver, Colo.—Richard F. Coulehan, 55, was killed instantly while repairing a conveyor on the bin deck at the Intermountain Elevator Co. elevator Feb. 28.

Lamar, Colo.—Fred H. Udell, for the past 13 years general manager of the Purina Mills plant at Kansas City, Mo., has been named president of Denver Alfalfa Milling & Products Co. and will take up his new duties May 1. Mr. Udell has been with Purina Mills organization for 29 years, starting in St. Louis, Mo., then six years as buyer in Kansas City, three years at the Denver plant, after which he became manager of the Purina properties at Kansas City. He succeeds Floyd M. Wilson, who becomes chairman of the board and continues in an advisory capacity. Mr. Wilson started with the Denver Alfalfa Milling & Products Co. 37 years ago, and has been head of its operations since that time. He has seen the company operations expand from the operation of a strictly sun cured alfalfa meal plant, into the dehydration business, and grow to where it now extends from California to Dundee, Mich., including more than 30 plants. Headquarters of the company are here.

Bovina, Colo.—The Snell Grain Co. elevator was damaged by high winds recently. The loss was small.

Yuma, Colo.—A new feed grinder of 10,000 lbs. per hour capacity has been installed at the Hart-Bartlett-Sturtevant elevator. This grinder will operate in connection with the company's large mixer and will facilitate custom grinding and mixing as well as the output of all kinds of ground or mixed feeds. Six new bins also have been built to take care of grains.

ILLINOIS

Urbana, Ill.—A freight elevator is being installed in the Dillavou Bros. feed store.

Wyoming, Ill.—Harry L. Hall has sold his feed store to Schrodt & Allen of Canton, who took possession March 12.

Oblong, Ill.—The Oblong Feed & Coal Co. has purchased the vault manufacturing business from Mr. Geffs and will continue its operation.

Forrest City, Ill.—John Pemberton, 80, a well known Mason County grain dealer during his lifetime, died of a heart attack Feb. 9 at his home.

Decatur, Ill.—The Staley clubhouse on Lake Decatur, recreation center for Staley employees since its construction in 1932, will be reopened about April 1.—P.J.P.

Fisher, Ill.—Charles Fairfield, 79, treasurer of the Farmer's Grain Dealers Assn. and twice mayor of this city, died March 8 after having been ill all winter following a stroke.—P.J.P.

Jacksonville, Ill.—Walter A. Davenport, 55, operator of the Walter Davenport elevator, died unexpectedly of a heart attack at his home Jan. 28. His widow, a son, Lt. Howard Davenport, Glenview Naval Air Station, and a daughter survive him.

Seaton, Ill.—The Seaton Farmers Grain Co. has been incorporated, 150 shares, common, p.v. \$100; incorporators: B. B. Seaton, Ed L. Scott, A. A. Roth; buying and selling of grain, seeds, feed, coal, livestock and other farm commodities and processing of feeds.

Elliott, Ill.—Work has been under way at the west elevator of the new Elliott Co-operative Grain Co., where the offices are being remodeled. The interior walls are being covered with masonite blocks in shades of tan and the former bank fixtures will be installed. The present offices on Main street will be closed.—P.J.P.

Peoria, Ill.—Allied Mills, Inc., is enlarging its research center with the erection of a new research administration building and headquarters for the industrial engineering department. Building will be started as soon as materials are available. Allied Mills, Inc., recently purchased a 220-acre tract of ground 15 miles north of here, near Chillicothe, Ill., and will establish a research farm there.

Galesburg, Ill.—The Soya-Belt Feed Mills, Inc., under the management of Donald J. Wallace, has taken over the plant formerly operated by the McMillen Feed Mills. The plant is now being enlarged and new machinery installed. The company will manufacture a special line of dairy, hog and poultry feeds and concentrates, also pulverized grains. Mr. Wallace, formerly sales manager of the Riverdale Products Co., Chicago, for many years, later establishing and managing the feed department of E. G. James Co., Chicago. He has had many years experience in the feed jobbing and brokerage business.

Tinley Park, Ill.—Tinley Park Coal & Feed Co. recently reopened for business in the former Kampe place east of the Lake-Cook Farm Supply Co.

Decatur, Ill.—Kenneth J. Maltas has been appointed assistant manager of the grain department of the A. E. Staley Mfg. Co. Mr. Maltas, widely known in the feed trade, joined the Staley organization in 1927 as sales representative in the western territory, and in 1937 was appointed sales manager. N. M. Crain, who has been assistant western sales manager has been appointed to succeed Mr. Maltas as sales manager of the western territory.

Decatur, Ill.—A. E. Staley Mfg. Co. and subsidiary, for the year ended Dec. 31, March 21 reported increased net sales but decreased profits. Sales were \$69,444,652 compared with \$88,654,160 in 1943; net income was \$1,599,337, equal to \$3.22 a common share, as against \$1,862,355, or \$3.85 a share, in 1943. The decrease in earnings was caused by the writing off, under a certificate of non-necessity, of \$1,113,280 of emergency facilities, the annual report showed. A. E. Staley, president, in his remarks stated construction of the soybean plant begun last June should be completed by late spring. The investment will be approximately \$2,000,000, he stated.

CHICAGO NOTES

By a large majority, members of the Chicago Board of Trade March 14 voted to change rules so that charge of 1c a bushel for handling corn will be made to non-member to conform with O.P.A. regulations.

J. C. Wood, senior partner in the provision firm which bears his name, on March 13 celebrated 50 years of continuous membership in the Chicago Board of Trade. This admits him to the mythical inner circle which boasts of a full half century of active affiliation with the local Exchange, there being only 10 others in addition to Mr. Woods. He resides in Hinsdale.

The trading floor of the Chicago Board of Trade quite fittingly afforded the background March 23, for the presentation of the Breeder's Gazette gold medal to the national champion corn grower for 1944, Forrest Woods of Belleflower, Ill. Gov. Dwight H. Green made the presentation. Mr. Woods produced an average yield of 182.05 bus. of corn to the acre from a 10-acre plot. Other speakers were Samuel R. Guard, editor of Breeder's Gazette, and Harry C. Schaack, pres. of the Board of Trade.

Eben Douglas Norton, 78, a grain commission merchant in Chicago for many years and a member of the Chicago Board of Trade since 1911, died Sunday, March 18, at his home in Evanston. News of his death came as a shock to his many friends in the grain trade as he had been on the floor of the Exchange as usual on Saturday. Mr. Norton was a native of Livingston County, served in the Santiago campaign in the Spanish-American war. He was a member of the Illinois Athletic, Lake, Shore, and Evanston Golf Clubs, and the Santiago Society.

INDIANA

Napoleon, Ind.—The Behlmer Feed Mills are installing new corn handling and shelling equipment.—H.H.H.

Indianapolis, Ind.—O. D. Kendrick, 78, well known hay and grain man, died recently in a local hospital.—F.K.S.

Windfall, Ind.—Ross Curless has resigned as manager of the Union Elevators, Inc., to take up another line of work.—F.K.S.

San Pierre, Ind.—Vanek Bros. of North Judson, Ind., have purchased the R. H. Batzka Elevator and Robert Batzka will operate it for them.

Elizabethtown, Ind.—W. Don Adams, 51, operator and owner of the W. D. Adams Elevator, died March 13 in a hospital in Indianapolis.—P.J.P.

Centerville, Ind.—Richard Williams has purchased the interest of his partner, Crawford Berry, in the Centerville Grain Co., and is sole owner of the business.

Greensburg, Ind.—Bewley Bros., operators of an elevator at Letts, Ind., bought Hornung's Mill. The flour milling machinery has been sold and the plant will be remodeled as a feed mill.—H.H.H.

Saratoga, Ind.—Mrs. Pearl Tegarden, owner of the Morrison-Tegarden Elevator, has sold her property to Ralph Cox of Ridgeville. Possession was taken on Feb. 26. The new firm will operate under the old name.—F.K.S.

Twelve Mile, Ind.—The Farmers Elvtr. Co. at a stockholders' meeting March 3 voted to sell its elevator to the Cass County Farm Bureau Co-op. Ass'n, Inc., who will use it for auxiliary purposes. Frank Cress has been manager of the elevator.

Mulberry, Ind.—A. R. Judge has resumed his duties as manager of the Mulberry Grain Co. after being off duty for three months on account of illness. Clayton Bass, who was in charge during his absence, has returned to his home in Gwynneville.

Indianapolis, Ind.—All of our members who can qualify under the new definition of a "store," may again take a retail mark-up of \$4.00 per ton, sacked or bulk, on l.c.l. sales of grain to feeders. (See FPR 2, Supp. 1, Sales of Grain by Retailers.)—Fred K. Sale, sec'y, Indiana Grain & Feed Dealers Ass'n.

Indianapolis, Ind.—The following applications for membership in the Indiana Grain & Feed Dealers Ass'n have been received: General Mills, Inc., Johnson City, Tenn.; Shelby County F. B. Co-op. Ass'n, Rays Crossing and additional station; Deedsville Feed & Supply Co., Deedsville, Ind.—Fred K. Sale, sec'y.

Bluffton, Ind.—The Wells County Farm Bureau Co-op. has purchased from the Red Cross Mfg. Co. a tract of three and one-half acres of land at the north edge of the city to be used for the site of a feed mill, store and storage place for farm machinery, lumber and fencing to be sold by the organization. The new building probably will not be erected until after the war.

Geneva, Ind.—The Geneva Hatcheries officially opened its new feed mill with a grand opening celebration on March 3. The mill occupies what formerly was the poultry barn south of the hatchery building, which has been remodeled for the purpose and houses newly installed mill equipment. E. C. Stucky is manager of the mill. A large crowd attended the opening and many prizes were given away.

Rochester, Ind.—Bob Moore has purchased the building formerly occupied by the Rochester Equipment Co., and has opened a warehouse and sales office for the distribution of O.M.S. Corp. Buttermilk Products, for which he is state sales representative. These products will be marketed by Mr. Moore under the trade name of Forest Farms Buttermilk Feeds. Mr. Moore plans to remodel and enlarge the building just purchased.

IOWA

Mapleton, Ia.—E. P. McVicker has purchased the Wiley Feed store from Rex E. Wiley.

Garner, Ia.—Hilary Greiman recently installed a feed blower at his Garner Roller Mills.

Oskaloosa, Ia.—Rex E. Wiley, formerly of Mapleton, Ia., is new manager of the Swift & Co. produce and feed station.

Plano, Ia.—Lincoln Harbold, 81, for many years in the feed business here, and a prominent agricultural man, died March 15.

Holmes, Ia.—The Farmers Co-op. Elevator held its 40th annual meeting March 10 on which occasion Donald E. Edison, sec'y of the Farmers Grain Dealers Ass'n was principal speaker. Clarence Cooper is manager, Norris Ulstad, assistant.

Pocahontas, Ia.—The Farmers Co-operative Co. is considering increasing its storage capacity by erection of additional concrete bins.

Tipton, Ia.—Otis A. Gable, for the past 12 years owner and operator of a seed, feed and grain company here, died in Cedar Rapids hospital recently.

Sheldon, Ia.—Chas. Hanson, manager of the Farmers Co-op. Ass'n elevator, at the recent annual meeting of the company reported sales the past year amounted to \$523,520.02.

Muscataine, Ia.—Ernest D. Werner, 44, an employee of the McKee Feed & Grain Co., and a resident here for the past 19 years, died at Bellevue Hospital March 4, after a two weeks' illness.

Davenport, Ia.—The Teske Milling Co. has been incorporated, capitalized at \$100,000. Officers are: Chester D. Slater, pres., and treasurer; Edward A. Doerr, vice-pres., and Ethel Ogden, sec'y.

Conrad, Ia.—John R. Gier, 80, for more than 30 years a partner in the Gier & Belz lumber, grain and coal firm and a former mayor of Conrad, died Feb. 23 at St. Joseph's Hospital at Waverly as the result of a stroke.

Council Bluffs, Ia.—Roy A. Scofield Co. is installing a new attrition grinder, feed mixing bins, elevator leg and new scale in an effort to cut down the amount of help needed in the milling department and also to reduce costs.

Scranton, Ia.—The annual meeting of the stock holders of the Farmers Elvtr. Co. was held March 14. The manager reported net savings amounting to \$29,796.33 on total sales amounting to \$963,413.37; \$24,492.70 in patronage dividends was paid.

Clinton, Ia.—The Pillsbury Mills, Inc. have installed a grain merchandising department here to handle the buying and merchandising of grain from Iowa and Northern Illinois. It is managed by Glen S. Watkins who formerly was with their Omaha branch.—A. G. T.

Humboldt, Ia.—The Farmers Co-operative Ass'n held its annual meeting March 13. The annual dinner served in former years was canceled, only doughnuts and coffee being served. Tom Robinson, manager, reported another profitable year. Dividend checks were distributed to stockholders.—A. G. T.

Des Moines, Ia.—Joe C. Smay, formerly manager of the Farmers Co-operative Co. of Alman, Ia., has been appointed general manager of Community Elevators, Inc.'s eight country elevators situated in Iowa. He maintains his office in the local headquarters of the company at 1000 Fleming Bldg. Mr. Smay has been in the grain and feed business for many years.

Harcourt, Ia.—Friends of Peter Greenfield who managed Farmer Elevators at Crooks, Palm Grove, Dike and Harcourt in recent years, but now out of the business, will sympathize with him and his wife in the loss of their son, PFC Lawrence O., who was lost in action in Germany Dec. 20th. Memorial services were held in the School Auditorium.—A. G. T.

Des Moines, Ia.—Our Commercial Feed Bill that was passed by the Senate March 9 was passed by the House March 14 with an amendment. The Senate must now concur with the House. This bill sets up a fund of inspection fees collected for use by the Sec. of Agri. in the administration of the Commercial Feed Law.—Mark K. Thornburg, sec'y Western Grain & Feed Ass'n.

Ashton, Ia.—The Farmers Elvtr. Co. held its annual meeting March 10 in American Legion Hall, with a good sized crowd attending. Mgr. A. F. Umhoeffer read the auditor's report and made some additional comments. The company had another good year. Peter Johannes, who has been an officer of the company for 35 years, gave a short talk. Mgr. Umhoeffer passed out cigars and pencils and the meeting closed with the American Legion Auxiliary serving coffee and doughnuts.

Delmar, Ia.—The Delmar Grain & Feed Co. has bought the E. G. Franklin Lumber Co. A. E. Franklin remains as an employee, Wilmer Lary continues as manager of the mill.

Dougherty, Ia.—The Farmers Co-op. Elevator business for 1944 as reported at the recent annual meeting by Miss Grace Fowler, manager, was \$354,782.32. Net profits amounted to \$7,839.99; dividend declared totaled \$7,265.98.

Des Moines, Ia.—George E. Hamilton, 72, author of the "Iowa Corn Song", sung lustily at most meetings of Grain & Feed Dealers National Ass'n, and that has made the whole country associate Iowa with tall corn, died March 14. Mr. Hamilton penned the words to a tune which he heard as a boy while Iowa Shriners were traveling to their national meeting in Los Angeles, Cal., in 1912.

Calamus, Ia.—The Farmers Elevator reported an outstanding business for the past year in soybeans when a total of 28,881 bus. were handled, all of the 1944 bean crop, the greatest amount in its history. In addition to this business the company shipped 3,933 hogs, 397 cattle, 89 calves and 20 sheep, a total of 73 carloads of livestock, for the Chicago market, all shipped by rail Wm. Eden and Stanley Fagerland are in charge of the business.

Marengo, Ia.—The H. G. Smith feed plant has been purchased by Chas. Fields, for the past 20 years employed at the Maytag plant at Newton. He will take possession about April 1, and will operate the plant himself. Mr. Smith started the business 20 years ago. With the feed mill included in the sale were trucks and all equipment and the residence on West Washington St. Mr. Smith and his family will locate in the west. He retired from business because of failing health and labor shortage.

Des Moines, Ia.—Wm. C. Covington has been named manager of the animal by-products division of the Iowa Feed Co., to be in charge of production, purchasing and distribution of ingredients processed in the company's new plant. Mr. Covington recently has been local manager of the feed department of the National Feed & Supply Co. Prior to that he was feed and grain specialist with the district office of the O.P.A., with headquarters here. He also previously was with the Quaker Oats Co. at Cedar Rapids in the feed department for eight years.

Roland, Ia.—The Farmers Co-op. Elvtr. Co. opened its new feed mill with fitting dedicatory program on March 20. The new plant was constructed by the Geo. Todd Const. Co., and was designed with the idea of eliminating as much of the usual hard work as possible. A screw conveyor is used to feed the grain into the 75-h.p. hammer mill. Ground and mixed feeds are delivered to trucks parked in an enclosed driveway, eliminating the necessity of sacking or scooping the feed. The mill consists of two buildings, one 69 x 30 ft., housing seven grain bins, and the feed mill is in a building 24 x 30 ft. Equipment of the plant includes a 1.5-ton feed mixer.

KANSAS

Inman, Kan.—The Enns Milling Co. recently installed a new 34-ft. truck scale.

McPherson, Kan.—The K. B. R. Milling Co., is building an addition to its warehouse.

Kackley, Kan.—The C. W. Bradshaw elevator has installed a new Western Corn Sheller.—C. L.

Leavenworth, Kan.—Thos. Larkin, manager of the Welch Feed & Coal Co., died Mar. 19.—G. M. H.

Eskridge, Kan.—The Eskridge Elevator recently installed new grain moisture testing equipment.

Topeka, Kan.—Armin Fassler, 86, long-time local manager of the Inter-Ocean Mills, died March 20.—G. M. H.

Salina, Kan.—The Salina Board of Trade is doing some remodeling putting in new furniture and electric light fixtures.—G. M. H.

Barnes, Kan.—Emil Karas, manager of the Barnes Co-op. Elevator for the past eight years, resigned recently because of ill health. Mark Wagoner is new manager.

Junction City, Kan.—A drive belt in the Junction City Milling Co. plant slipped off the pulley Mar. 12, broke an electric power conduit, causing a short circuit and some fire.

Topeka, Kan.—E. J. Schroeder is new manager of the feed department of the Forbes Milling Co. Mr. Schroeder formerly was associated with the Marshall Feed Co. at Clay Center, Kan.

Protection, Kan.—Cold and wet weather has delayed work on the new Co-op. Elevator. Materials have been assembled for the construction, however, and better spring weather will see rapid progress being made.

Elkhart, Kan.—Wet weather is causing a loss of much grain piled on the ground in Morton County, and if the car shortage continues many farmers fear that thousands of bushels of grain will be severely damaged.—G. M. H.

Topeka, Kan.—House Bill No. 250, an act providing for variety type analysis testing of wheat, failed to pass in the House of Representatives Friday night, March 16. The vote was 61 yes, 48 no; 63 votes were required to pass the bill.

Salina, Kan.—Will Peterson, who was with the Western Star Milling Co., died of a heart attack Mar. 16 at his home here. He had not been well for several months. For years he was with the Snell Mill & Grain Co., Clay Center, Kan.—G. M. H.

Topeka, Kan.—Pvt. Marvin E. Coffee of the Marines, who was employed by the Ismert-Hincke Milling Co., was killed in action on Iwo Jima on Feb. 26. Pvt. Coffee joined the Marines over two years ago, and in May, 1944, was sent overseas.—G. M. H.

Holyrood, Kan.—The Holyrood Co-op. Grain & Supply Co. is considering plans for erection of an elevator building. Members of the co-operative were asked to vote on the proposition at the recent annual meeting, and those not present on that occasion are being contacted for their votes.

St. Marys, Kan.—The largest demand for prison labor in Pottawatomie County this year will undoubtedly be by E. A. Jones' Alfalfa Dehydrating plant. H. C. Phippen, representative of the mill, said they would require about sixty men from the first of April until frost.—G. M. H.

Marienthal, Kan.—Reuben A. Boulware Grain & Supply Co. recently added and remodeled with used material a 4,000-bu. bin room. A Boss Blower loader (used) has been installed to handle cane seed and other grains. Another used blower for loading on trucks is to be installed.—R. A. B.

Minneapolis, Kan.—J. C. Johnston, A. O. Long, both laundry executives, and R. M. Tigerman, identified with a packing company, all of Kansas City, are building an alfalfa dehydrating plant here. It will be known as the L.J.T. Milling Co., Inc., and will be in operation this season with H. H. Eikermann as manager.

Haviland, Kan.—Stockholders of the Citizens Co-op. Co. on Mar. 24 at a special meeting here rejected the proposal to sell the elevator and dissolve the business.—I.D.A.

Colony, Kan.—Milton L. Morrison, Gypsum, Kan., is new owner of the Colony Elvtr. Co. elevator. Mr. Morrison owns four other elevators in Kansas and manufactures his own line of feeds. Eugene Forsberg, who moved here with his family from Roxbury, Kan., is manager of the local elevator.

Powhattan, Kan.—Earl F. Bartley, 49, who had been manager of the Derby Grain Co. for the past 20 years, died March 19. Enroute to work that morning, he became ill. Returning to his home he was taken immediately to the hospital in Horton, where he died that afternoon. The cause of death was a heart attack.—G.M.H.

Junction City, Kan.—Raymond E. Hunt, 46, head miller of the Junction City Milling Co., was killed instantly the night of March 8 when he was thrown from his automobile in a collision with another auto. Mr. Hunt had been employed at the local plant for three years, coming here from Clay Center, Kan., where he had been employed by the Mid-Kansas Milling Co.

Kingman, Kan.—A car of "off-brand" wheat was rejected here recently by the Consolidated Mill after a test had been made in the mill laboratory. The wheat was from Western Kansas, and was ordered reloaded and was then shipped for making alcohol meal. "The wheat was better adapted for making tires than bread," R. W. Vance, manager of the mill, declared.—G. M. H.

Topeka, Kan.—The Thomas Page Mill Co., pioneer Topeka flour miller and one of the oldest mills in the state in continuous ownership and operation by the same family, was sold March 15 to the Ismert-Hincke Milling Co. The business was founded by Thomas Page, who started in 1871, and has been owned and operated by David Page, son of the founder, and his sister, Miss Euphemia B. Page. The sale of the mill was due to the ill health of David Page. The business has been under the management of Milton P. Fuller and Charles H. Crabb for the past seven years.—G. M. H.

Dodge City, Kan.—J. F. Moyer who helped to organize the Dodge City Terminal Elvtr. Co., in 1930 and who has since served as manager of the half million-bu. terminal elevator, has sold his interest in the corporation to Claud M. Cave, also a stock holder since organization. Mr. Moyer's future plans are unannounced except that he says he is going to enjoy a few months' rest from the grain business, during which time he will look after his farm and ranch interests in Kansas and Colorado. He says that 30 years is a pretty long continuous stretch to serve in one business, and it has been just that, for it was in 1915 that he took his first job as manager of a country elevator in western Kansas. Mr. Moyer was sec'y of the Kansas Grain, Feed & Seed Dealers Ass'n for years before his retirement from that office Feb. 2. He has a wide circle of friends in the grain trade.

KEN CLARK GRAIN CO.

ST. JOSEPH, MO.

CONSIGNMENTS

SERVICE

GRAIN MERCHANTS

SATISFACTION

STRATTON GRAIN CO.

GRAIN AND FEED MERCHANTS

MILWAUKEE, WIS.

ST. JOSEPH, MO.

NEW YORK, N. Y.

CHICAGO, ILL.

MILL FEEDS—FEED PRODUCTS—BY-PRODUCTS

Consignments and Future Orders Solicited

KENTUCKY

Lancaster, Ky.—A. T. and J. I. Sanders have purchased the grain, feed and seed business of W. A. Farnau.

Monticello, Ky.—M. H. Sidwell, J. P. Harrison and Lyle Stokes recently purchased the Bell Mill and will operate under the name of the Wayne Milling Co.

Lebanon, Ky.—Southern States Lebanon Co-operative, with a membership of 400 farmers in this section, opened here Mar. 7. Ward Henderson, formerly with the local branch of the Haydon Mill & Grain Co., is manager.

Uniontown, Ky.—Four thousand bushels of corn in an isolated elevator near here were saved from recent flood waters on March 10 when rivermen made a trip from Shawneetown, Ill., by barge upstream from the swollen Ohio to the elevator.

Lexington, Ky.—High winds on March 6 ripped the roof from the Fayette Coal & Feed Co.'s coal storehouse and tossed it a block distant where it landed on the roofs of two houses, knocking down three power lines carrying 4,000 volts of electricity each, enroute.



**Everything for
Every Mill,
Elevator
and Feed Plant**

**MACHINERY
AND SUPPLIES FOR
GRAIN ELEVATORS
AND FEED PLANTS**

**R. R. HOWELL CO.
MINNEAPOLIS, MINN.**

Think

If you think you are beaten, you are:
If you think you dare not, you don't.

If you like to win but think you can't
It's almost a cinch you won't.

If you think you'll lose, you're lost:
For out in the world we find
Success begins with a fellow's will:
It's all in the state of mind.

If you think you are outclassed, you are:
You've got to think high to rise,
You've got to be sure of yourself before
You can ever win a prize.

Life's battles don't always go
To the stronger or faster man;
But soon or late the man who wins
Is the man who thinks he can.

—Anonymous.

observed by

Leo Potishman, President

**Transit
GRAIN COMPANY**

Fort Worth 1, Texas

GRAIN—SEEDS—FEED CONCENTRATES

Elizabethtown, Ky.—Price & Holman Feed Co. has announced a feed grinding service for the community. They are operating a portable hammer mill on a definite schedule plan.

Louisville, Ky.—Ballard & Ballard Co. is emerging from the recent flood and has its carton department in operation. Its Oven Ready biscuit department started producing again on March 19 after a two weeks' lay off. It took two weeks longer to get the flour mills and feed plants running.—A. W. W.

MICHIGAN

Onsted, Mich.—High winds damaged the plant of H. E. Branch & Son recently.

Breckenridge, Mich.—Lawrence Wright of Lapeer has been named new manager of the Farmers Elevator to succeed Wilbur Hubbard and will take over his duties within a month.

Lansing, Mich.—R. A. Backus, 47, assistant sec'y of the Michigan Millers Mutual Ins. Co., in charge of mill and elevator underwriting, died unexpectedly the evening of March 9, three hours after he had left his office. He had been with the company 23 years.

MINNESOTA

Cobden, Minn.—We are installing a corn drier in our elevator.—Zieske Bros. Elevator.

St. Paul, Minn.—The Capital Flour Mills reported an electrical breakdown occurring in "B" Mill on Mar. 15.

Floodwood, Minn.—H. L. Zubrod has opened the Meadowlands Feed Store and is carrying a full line of Cargill Feeds.

Ada, Minn.—Shelly Feed & Seed have been made an approved custom mixing station by the Purina Mills, St. Louis, Mo.

Sacred Heart, Minn.—Albert Skrukrud has purchased Sverre Ockwig's newly established feed business, handling Cargill feeds.

Balaton, Minn.—The west elevator of Miller Elevator is being covered with sheet iron, the T. E. Ibberson Co. having the contract. Repairs also are being made in the structure.

Fairfax, Minn.—The new feed grinding department of the Farmers Grain & Stock elevator has opened for business. The new hammer mill is operated by a diesel engine. Henry Harter is manager of the elevator and Fred Seesz, assistant.

Aitkin, Minn.—Vernon Tarr recently resigned as manager of the local Farm Service Feed Store and has gone to Hutchinson, Minn., where he will take over a similar job. Kenneth Oberg, formerly of St. Cloud, Minn., has succeeded him here.

Garfield, Minn.—Niels P. Pedersen, manager of the Farmers Co-op. Elevator Ass'n elevator for the past 12 years, resigned recently, and is leaving for Hillsboro, N. D. Theo. C. Johnson has been appointed acting manager of the local plant until a permanent manager is named.

Canby, Minn.—Ed Erickson, who sold his elevator and retired nearly two years ago, is back serving as manager of the elevator which still bears his name, B. Erickson Elevator, until a new manager is employed to succeed Oscar Schmidt whose resignation became effective Feb. 24.

East Grand Forks, Minn.—Potato, Inc., has been organized here for buying, selling, growing and processing of potatoes, vegetables and small grains, and buying and selling feeds of all kinds. Incorporators: R. J. Babcock, Minneapolis, Minn.; R. E. Theel and G. L. Nedrud, Grand Forks, N. D.

Wendell, Minn.—Al Glines, farmer north of Walker, S. D., recently purchased a 65,000-bu. elevator here. The elevator, with all modern equipment, carries coal and stock minerals and concentrates. George Moe, former resident of McIntosh, S. D., who has been buying grain at Aberdeen, will take charge of the business, moving his family here this spring.

Wadena, Minn.—Pillsbury Mills, Inc., opened a new distributing warehouse here March 19 in what was formerly the H. E. Kiger & Son feed plant, a Pillsbury owned plant which the Kigers had leased and operated for several years. The warehouse will serve a 50-mile area around Wadena. Feed plant operations and custom grinding will be continued. Dennis Dykr, formerly a salesman for Kiger & Son, has been named manager of the warehouse which will handle all Pillsbury food and feed products.

Bird Island, Minn.—The local hemp mill, one of eight such plants in western and southern Minnesota recently leased by the Farmers Union Grain Terminal Ass'n, to be converted to corn drying plants, was placed in operation about two weeks ago. The other plants, located at Hutchinson, Lake Lillian, Grove City, Sherburne, Wells, Jackson and Montgomery, will be operating within two weeks. Thru this conversion it is estimated that millions of bushels of wet corn lying on the ground because of insufficient storage space, will be saved. Contract has been let for repairs to the Osborne-McMillan Elevator to cost \$5,000.

MINNEAPOLIS LETTER

Marshall B. Beaubaine, M. J. Beaubaine and Mildred Beaubaine, all of Minneapolis, have incorporated Soya-Belt Feed Mills, Inc., to buy, sell and otherwise deal in all kinds of cattle and stock feeds.

Jay A. Canfield, 69, at one time manager of the millfeed department of E. S. Woodworth & Co., when that firm was active, and later with the Fraser-Smith Co. in the same capacity, died recently in Portland, Ore., where he had made his home for many years.

James A. McNulty, 82, Minneapolis grain man who established the J. A. McNulty Co. in 1910 which he operated in partnership with his son, the late John C. McNulty, died recently in Glendale, Cal., and was buried in Kansas City, Mo. He was president of the Hyland Homes Co. and a member of the Minneapolis Athletic and Traffic Clubs.

MISSOURI

St. Louis, Mo.—Walter H. Toberman, president of the Toberman Grain Co., is Democratic candidate for president of the St. Louis board of aldermen.

Maitland, Mo.—Carl Rother, who purchased the Farmers Coal & Grain Co. from Ray and Edwin Davis several weeks ago, has taken possession of the business.

Gallatin, Mo.—Edwin Wynne has purchased the Owings Mill & Feed Co., including business, building and equipment, from Robert Owings and has moved to his new location.

Bethany, Mo.—Buildings and adjoining land in West Bethany of the Bethany Mill & Elevator Co. under the ownership of W. T. Lingle, have been sold by heirs of his estate to Fred Millemon of Princeton, Mo.—P. J. P.

New Hampton, Mo.—Charles Edson, owner of the Edson Elevators, here and at Bethany, recently sold the local elevator to Jesse H. Fifer of Chillicothe. Possession was given Feb. 10. Bryan Barnett has been managing the elevator.

Ash Grove, Mo.—The Ash Grove Farmers Exchange has purchased the Ash Grove Feed Mill from Frank Gilmore. Mr. Gilmore, who has owned and operated it for the past several months, was forced to sell because of ill health. The mill is being operated at the same stand with Floyd Davis as manager.

KANSAS CITY LETTER

John C. Skaggs, for the past several years assistant manager of the Purina Mills' local plant, will succeed Fred H. Udell as manager of the local mill May 1, when the latter will move to Lamar, Colo. as president of Denver Alfalfa Milling & Products Co.

F. G. Bienhoff, for many years with the Crete (Neb.) Mills, has joined the Hart-Bartlett-Sturtevant Grain Co. as head of its feed department.

Kansas City, Mo.—Sgt. Lee O. Milner, 35, who was employed at the Larabee Flour Mills in North Kansas City before he entered the service in February, 1943, was killed in action in Germany March 2, according to word received recently by his wife.—G. M. H.

MONTANA

Helena, Mont.—Railroad carloadings in Montana during January were 13.5 per cent below those of January, 1944, largely because of declines in grain loadings, the state board of railroad commissioners report. All grain carloadings dropped, and wheat loadings totaled only 1,660 cars, 2,477 loadings below the 4,137 loaded the year before.—F. K. H.

NEBRASKA

Nonpareil, Neb.—Ira Leavitt has purchased the elevator from Hagemester's, Inc.

Lindsay, Neb.—Killie Schaecher is new manager of the Continental Grain Co. elevator, succeeding Walter Albracht who returned to farming.

Gladstone, Neb.—Albert Schoenrock recently bought the 15,000-bu. elevator here, formerly managed by Louis Ute for W. E. Lea of Fairbury.

Bloomington, Neb.—Vernon Lethem is in charge of the 10,000-bu. elevator which Roy Bashford and Walter Post, both of Napponee, recently leased from the Bloomington Grain Co.

Wareham (Randolph p. o.), Neb.—C. J. Ronan, proprietor of the C. J. Ronan Elvtr. Co., was removed to St. Joseph's Hospital, Sioux City, recently following a sudden attack of illness.

Clay Center, Neb.—Harry Frank is new manager of the Farmers Union Elvtr. Co. elevator. He resigned as a director at the recent annual meeting of the company, to take over the managership.

Tamora, Neb.—Otto Wied, for many years manager of the Farmers Grain & Coal Co. elevator prior to his resignation last June, died Mar. 5 of a heart attack at his home in Burbank, Cal.

Beatrice, Neb.—Beatrice Feed & Seed Store has been sold to Harvey Kreuscher, formerly of DeWitt, D. D. Wainscott, co-owner, and Lee Long, manager, announced. Mr. Long will remain as manager.

Imperial, Neb.—Joe Sauer, formerly of Benkelman, and Cloyd A. Nesmith recently purchased the John Splitt Produce and Feed Store and have taken possession of the business, Mr. Sauer acting as manager.

Grand Island, Neb.—H. G. Carpenter has sold his elevator to the Uhlmann Grain Co., but will continue to operate the property for the new owners. He has been in the grain trade in this vicinity since 1924.

Cozad, Neb.—Leland K. Johansen, Lexington, Dawson County Agri. Agent, recently resigned his office, effective April 15, to become business manager of Dehydrated Feed Products, Inc., which is building a dehydration plant at Darr.

Ragan, Neb.—Gustav R. Klein, 70, who was manager of the Farmers Elevator for several years before moving to Hastings, Neb., died of a heart attack Mar. 6. Before coming here he was manager of the Farmers elevator in DeWitt for 22 years.

Holdrege, Neb.—Thru a contract arrangement between the Holdrege Seed & Farm Supply Co. and the Holdrege Roller Mills a corn drier is being installed in the former terminal elevator south of the depot, to serve this area in drying pop corn, field corn and other grain.

Linwood, Neb.—The Farmers Grain Co. has changed its name to Farmers Co-op. Grain Co., and amended its articles of incorporation.

OMAHA LETTER

The Farm Crops Processing Corp. continues operating at capacity from grain supplies on hand, J. L. Welsh, vice-pres. of the corporation, reported earlier this month, but there was considerable worry about the shortage of corn supplies which come in by rail. The plant consumes 30,000 bus. of corn a day.

Lt. James L. Welsh, Jr., of the Army Air Corps, son of J. L. Welsh, head of the Butler-Welsh Grain Co., has been awarded the air medal and Oak Leaf Cluster for meritorious achievement in aerial operations against the enemy May 28 to July 8, 1944. The medal will be presented to his wife as the officer is a prisoner in Germany.

The Nebraska section, American Ass'n of Cereal Chemists, met March 17 in the Grain Exchange Bldg. Dr. L. A. Underkoffler, Farm Crops Processing Corp., discussed industrial alcohol production at the morning session, and following the address the chemists made a tour thru the Farm Crops Processing Corp.'s alcohol plant. In the afternoon R. H. McKinney, Cudahy Laboratory, spoke on stabilization of fats for baked goods; there was a discussion of 1944 Nebraska check sample results. A brief business session closed the meeting at which E. J. Rosse, chairman of the Nebraska section, presided.

NEW ENGLAND

North Haverhill, N. H.—Roland Clough, manager of the Grafton Feed Co. for several years, recently entered the armed forces.

NEW YORK

Bronxville, N. Y.—H. A. Bittenbender, 57, director of the animal and poultry nutrition service department of the Borden Co. died Mar. 7.

NORTH DAKOTA

Mercer, N. D.—Fred Kline, 69, manager of Peavey Elevators, died March 9.

Rugby, N. D.—Elmer Rasmussen, manager of the First Farmers Union Elevator for the past five seasons, resigned his position and Morris Monger, who has been in charge of F. U. Elevator No. 2 will manage all three Farmers Union Elevators here.

Woodworth, N. D.—Martin Sorenson has sold his elevator and coal business to Fred Kupseng of Bismarck, N. D. J. R. Scheidt is new manager.

Lawton, N. D.—Timely discovery of a fire in the pit at the Peavey Elevator by an employee when he opened the elevator March 3, prevented bad damage and possible destruction of the elevator.

Hillsboro, N. D.—Niels P. Pedersen, formerly manager of the Farmers Co-op. Elevator at Garfield, Minn., has taken over operation of his own feed and produce plant here, the Midwest Feed & Produce Co.

Truro (Lansford p. o.), N. D.—Otis Tossett has sold the local elevator which he bought last year from the St. Anthony & Dakota division of the Farmers Union Grain Terminal Ass'n, to Howard Henry, Westhope. The 25,000-bus. elevator is being moved to Henry's farm, Einar Lee having the moving contract.

Granville, N. D.—E. L. Lippman has purchased the Granville Grain & Feed Store from J. T. Mortell, making the second elevator he has acquired here. Mr. Lippman stated purchase of the second plant will give his business additional grain storage capacity as well as facilities for cleaning seed and grinding feed.

Forfar (Lansford p. o.), N. D.—Otis Tossett, farmer near here, has purchased the two elevators of Cargill, Inc., with a joint capacity of \$55,000 bus., and will name a manager to carry on the business. Mr. Tossett stated he expected to go into the seed business here later also. Lester Seth, who has managed the elevators for the past several years, is planning to go to Westhope.

OHIO

Nelsonville, O.—V. A. Miller opened Miller's Produce, a feed store, in the Kreppel Bldg. March 3.

Findlay, O.—Virgil Francis McMillen, 54, dealer in hay and straw, died recently of burns suffered when kerosene exploded as he was kindling a fire.

McComb, O.—The McComb Farmers Co-op. Ass'n elevator will be razed to make room for construction of a new and up to date structure, Mgr. Chas. B. George announced.

Jefferson, O.—Daniel Swickard, 62, a former local resident, traveling salesman for the Union Grain & Feed Co., Cincinnati, died at Columbus Mt. Carmel Hospital March 11 following a major operation.



Here's the Solution to your Capacity Problem!

If you really want your elevator legs to be ready for any "peak" or "rush" condition—look to "Nu-Hy" Buckets to put your house in order. "Nu-Hy" Buckets are scientifically designed to give you the highest potential capacity your legs are capable of delivering. They permit closest possible spacing on the belt—they hold more—deliver more and eliminate premature spillage and backlegging.

You can obtain all the advantages of "Nu-Hy" Buckets without altering your present legs. Let us make a case study of your operations, without obligation, to submit guaranteed recommendations.

THE Nu-Hy

GRAIN BUCKET

TRADE MARK REG. U.S. PAT. OFF.

STANDARD OF THE INDUSTRY

Write for Capacity Analysis Form No. 76

Screw Conveyor Corporation

702 HOFFMAN ST. HAMMOND, IND.

ENGINEERS MANUFACTURERS

TRADE MARK REG. U.S. PAT. OFF.

Louisville, O.—The Star Mills reported damage to stock during transportation on one of the trucks, which upset March 1.

Bryan, O.—The Bryan Transfer Elevator, which has been in business here since 1926, has made no change in its name nor is any contemplated, H. F. Dachsteiner, proprietor, stated.

Sunbury, O.—The G. J. Mill & Elvtr. Co., operating elevators here and at Conduit and Centerburg, has been purchased by the Delaware County Farm Bureau Co-op. Ass'n.—P.J.P.

Monroeville, O.—The new 500 bu. per hour grain drier is being installed at the new Co-op. Grain Co. elevator. Work of completing the new 112,000-bu. grain storage plant is being delayed by labor scarcity.

Sandusky, (R.R. 1), O.—We have installed two Blue Streak Mixers and are making our own brand of starting, growing and laying mashers.—The Central Erie Supply & Elvtr. Ass'n, C. S. Love, mgr.

Clifton, O.—Isaac Preston, after 66 years as miller operating his plant here, has retired and is living with a grandson, Preston Corry, in Dayton. The Preston family will continue the operation of the mill.

Cincinnati, O.—Property formerly occupied by the Felss Flour Mill Co. at 1008-10 Richmond St., has been acquired by David M. Zellman from Theodore Felss. Title was then transferred to the American Barrel & Cooperage Co., which will utilize the four-story brick building and two elevators for storage purposes.

Richmond, O.—Henry D. Egley has resigned as manager of the A. E. Staley Mfg. Co. local plant, effective April 1, and on May 1 will join Victoria Mills, Ltd., Toronto, Ont., a subsidiary of the Canadian Breweries, Ltd., which recently started operating a new soybean processing plant. Thos. Longbons, assistant to Mr. Egley at the local plant, will succeed him as manager. James Creel will be the new assistant manager.

Ridgeway, O.—The Ridgeway Elevator operated by Everett Bruegler which burned last fall has been replaced. A local church building was purchased and moved to the elevator site, and machinery installed for custom grinding and grain handling. A Fairbanks Type Registering beam has been installed on the large truck scale; an elevator leg is being installed in what was formerly the church belfry.—Franks Scale Service.

Willard, O.—The Willard Farmers Exchange Co-op. Elevator held its annual meeting recently at the Willard Grange Hall. The elevator is rounding out 25 years as a successful business institution. Total business for the year was reported at over \$123,000. A 4 per cent patronage dividend was paid and a 4 per cent dividend to stockholders. J. F. Slattery, manager, and Mrs. Slattery, bookkeeper, in charge of the plant since its organization, were complimented on their successful management. Mr. and Mrs. Slattery will retire April 1.

Monroeville, O.—Councilmen soon will announce plans for converting the eight acre Bonney Mill property into a community park. Located on both sides of the Huron River and including the Monroeville River dam, the real estate is well adapted for park purposes. The picturesque mill, erected about 100 years ago, will be razed. The original name when the mill was built was the Monroeville Milling Co. Later it became known as the Heyman Mill. Fred Corry is the last proprietor. He is residing on the third floor of the building and was given authority to operate the mill pending his expected change in residence.

Lima, O.—Plans for the construction of a \$500,000 feed mixing mill here by Pillsbury Mills, Inc., were disclosed March 13 with the purchase by the company of the property of the Allen County Farmers Exchange on North Cole St. near Pennsylvania Ave. Clyde H. Hendrix, vice-pres. in charge of Pillsbury's feed mills division at Clinton, Ia., who negotiated the sale for his company, said construction will start as soon as critical materials are made available, but could give no indication at present of when that time will be. Removal of the present buildings on the site will start at once, he stated. The feed mixing mill, when completed, will employ about 50 persons.

OKLAHOMA

Augusta (Carmen p. o.), Okla.—Chas. W. Cox, 78, retired from the grain business and a former member of the Oklahoma Grain & Feed Ass'n, died recently. He had been ill for several years. Mr. Cox formerly conducted a business both here and at Enid.

El Reno, Okla.—Capt. Herman R. Dittmer, son of the late Herman Dittmer, former milling company executive, is recovering at AAF Convalescent Hospital, Miami, Fla., from injuries received after bailing out over the Hima-layas. He recently returned to the states.

Skiatook, Okla.—John Miller is interested in establishing an alfalfa dehydrating plant here. He will put in the plant if the required acreage can be signed up.

Grandfield, Okla.—Ira Neal, grain dealer at Tillman, has purchased the necessary machinery and is building a grain loading dock on the Katy just east of the cotton platform. He will buy grain here this spring and when materials can be had plans to build an elevator. He will continue operation of his Tillman elevator, holding that for his son when he gets out of the army.

Cherokee, Okla.—Roy E. Penifold has succeeded D. A. Mock as manager of the Cherokee Mills. He has been assistant at the mill for the past two years. Mr. Mock has gone to Fairfax where he is part owner and manager of an elevator and feed mill. Equipment for grinding, mixing and sacking livestock and poultry feeds under the trade name Made Rite has been installed at the local plant.

Enid, Okla.—You should lay your plans now and talk to your farmers against planting Chiefkan or Red Chief wheats. We realize this is a difficult thing to do, as farmers are not eager to take anyone's advice about planting wheat. The situation however might grow serious enough so that certain areas, known to be planted chiefly with these varieties, might be discriminated against by mills.—E. R. Humphrey, sec'y, Oklahoma Grain & Feed Dealers Ass'n.

Bristow, Okla.—The Collins-Horany Mill & Elvtr. Co. held its formal opening of its plant on March 17. A program of varied entertainment was presented on the occasion, starting at 12-noon and continuing thru the afternoon until 5:10 p. m. when the mill was thrown open for an inspection tour. Eleven motors have been installed in the plant for operating machinery. The elevator stands 85 ft. high and the basement and subbasement are some 20 ft. below the ground. Construction of the plant was started last April.

Sentinel, Okla.—Extensive repairs on the Uhlmann Grain Co. property are underway. The north elevator is being taken down and D. M. Reiter, manager of the company, stated a modern elevator will be erected on the site. The new elevator will be 70 ft. high, 25 ft. higher than the present one. New and faster equipment will be installed. New grain storage tanks are to be added to the battery at the north elevator bringing total number to six. At the south elevator the building will be repaired and new machinery installed where needed. The west elevator has been turned into a feed-mixing plant. If sufficient material is available a new office building will be built.

PACIFIC NORTHWEST

Auburn, Wash.—The Reese Feed Store has been opened under the management of Carl Reese.

Pendleton, Ore.—Collins Flour Mills has been changed to the name of Igleheart Bros., Inc. No change in managers.—D. M. G.

Goldendale, Wash.—Construction work has been started on a concrete and brick warehouse for Maurer Bros. Feed Co. The building will be 100x83 ft.—F.K.H.

Yakima, Wash.—Lorin Markham of Yakima has been re-elected district governor of the Pacific Northwest Feed Dealers Ass'n at a recent meeting held here.

Cove, Ore.—The Union County Grain Growers Ass'n has decided to rebuild the warehouse destroyed by fire. Priorities have been granted. The warehouse, 50 x 120 ft., will have a capacity of 70,000 bus. and cost \$45,000.—F. K. H.

Eugene, Ore.—Glen Highland, 49, died following an accident in the freight elevator shaft of Crabtree Feed & Seed Co. plant where he was employed as mixer. His head was crushed when the elevator dropped from the roof and caught him on the second floor.—F. K. H.



Remember . . .

"IT'S THE EARLY BIRD THAT . . ."

You're familiar with the rest of that old adage. The same general idea applies to the purchase of equipment. Due to scarcity of materials and labor shortage, it is not always possible to obtain immediate deliveries. The best assurance of getting what you want when you need it is to place your order early . . . well in advance of the busy season.

If your equipment want list calls for elevator buckets, investigate the manifold advantages of the

CALUMET Super Capacity Elevator **CUP**

The elevator bucket with the Logarithmic Curve . . . a patented Calumet feature. Write for Form 35 elevator data sheet and learn how much increased capacity you can get from your elevator legs with the elevator bucket that is streamlined to meet today's demands for speed, efficiency and economy.

B. I. WELLER COMPANY

327 S. LaSalle St.

Chicago 4, Ill.



Weller
Pat. No.
1,944,232

Spokane, Wash.—In a resolution listing certain actions taken by the state legislature, Greenacres Grange has denounced "such crazy and foolish use of the taxpayers' money when the U. S. is at war."—F. K. H.

Spokane, Wash.—Samuel Glasgow, pioneer miller, died March 14 after a long illness. Mr. Glasgow came to Spokane in 1882. At first he was employed as bookkeeper in the Clark & Curtis flour mill. He was one of the organizers of the Centennial Flouring Mills Co. in 1889, becoming sec'y-treas.—F. K. H.

Sedro-Woolley, Wash.—Ernie Johnson has purchased the interest of Orville Morgan in the Morgan & Johnson Feed Co. and will operate the business under the name of the Johnson Feed & Seed Co. Mr. Morgan will go to Everett. The two had been partners in the business for the past seven years.

Fairfield, Wash.—The Farmers Alliance Whse. & Elvtr. Co. recently sold its hardware and garage building and hardware, implement and garage business to Reuben Roecks and Wes Cornwall. It retains its elevator and warehouses and will continue in the grain business. Arthur Rieske continues in his former position as manager.

Enterprise, Ore.—The Wallowa County Grange, who last August purchased the Woolgrowers Warehouse Co.'s warehouses and grain and feed business, is constructing an oil and gas station close to the railroad and near its main office, to run in connection with its grain and feed business. The local elevator of the Grange was filled to capacity and could not take care of all of the grain offered.

Corvallis, Ore.—Western Feed Co. has taken over Max Winkler's feed store operated as the Valley Milling Feed & Seed Co. Stan Wilt and H. A. Pontius, owners and operators of the Western Feed Co., plan to carry a complete line of feeds for poultry and dairy at their new location. Business will continue as usual at their South Corvallis location also. The company specializes in vitamin balanced rations.

Spokane, Wash.—As an alternative, and in order to give our members an opportunity to meet and discuss mutual problems, it has been decided to revive the custom of holding district meetings. These meetings will be held at central points in the producing districts. We are planning now to hold a series of meetings during the next two or three weeks at the following towns: Pullman, Lewiston, Walla Walla, Ritzville, Davenport. A new record in dues payments for the Ass'n has been established. Of 155 members only seven are now in arrears on the current year's dues. This is a splendid tribute to the interest of the members in their organization. Let's make it 100 per cent.—Pacific Northwest Grain Dealers Ass'n, Inc., Don M. Gemberling, Sec'y.

Hay, Wash.—The LaCrosse Grain Growers, Inc., have purchased the old sack warehouses from the Pacific Coast Elvtr. Co. located here and at Schreck (Hay p.o.), and will convert them into a bulk storage house for grain here, Frank Schreck, manager of the company, announced. The Schreck warehouse will be taken down entirely and 240 ft. of the Hay warehouse has been razed. In the 300 ft. of warehouse left standing at the local warehouse the company plans to put in an elevator leg and convert the rest of the building into bulk room. Screw conveyors and belts will be installed for grain handling. The company had planned to build an elevator here but the War Board requested that no new facilities be built at this time. Material from the Schreck warehouse will be used in the local construction along with that salvaged from the razed portion of the Hay warehouse.

PENNSYLVANIA

Philadelphia, Pa.—Wm. B. Scattergood, 74, president of S. F. Scattergood & Co., grain and feed merchants, died March 9. The business will be carried on by Louis D. Toll, who has been vice-pres. of the company for many years.

SOUTH DAKOTA

Wagner, S. D.—Ralph N. James, who established the local flour, feed and produce store which he has operated for 30 years, died March 4.

Sioux Falls, S. D.—Burt Thompson, long experienced in the feed business, has been named sales manager of the newly organized Sioux Sales Co., selling Western Soybean Mills feeds.

Colman, S. D.—B. E. Nace, 78, a former manager of the Farmers Elevator here, with many friends in Lake and Moody Counties, died at the home of his son, Roy, at Egan, March 5.

Garretson, S. D.—Oscar Schmidt, formerly manager of the B. Erickson Elevator at Canby, Minn., took over his new duties as manager of the local Farmers Co-op. Elevator on March 1.

Draper, S. D.—Myron Pierce, manager of the Farmers Elevator at Philip, S. D., has leased the Farmers Elevator here from R. E. Rawlins, the owner, and will take over the business on April 1.

Corsica, S. D.—At a recent meeting of the Farmers Elevator plans were made to organize a co-operative elevator. Members of the charter board are: Lloyd Schlegel, Leo Hamburg, Abe J. Beukelman, E. H. Everson, August Plamp, John Grond and Howard Beck.

Philip, S. D.—Myron Peirce has resigned as manager of the Farmers Elvtr. Co. elevator, effective June 1. Earle F. Eberle will succeed him at that time. Mr. Eberle has resigned as county treasurer, effective April 1, in order to spend two months at the elevator before Mr. Peirce leaves. Mr. Peirce will take over an elevator at Draper. He has been manager of the local elevator for 10 years and before that was assistant manager for six years.

SOUTHEAST

Birmingham, Ala.—Nelson Mock, formerly sales manager of the New Era Milling Co., Arkansas City, Kan., who was transferred here recently by that company to establish an office here as southeastern sales manager, has entered the brokerage business under the name of the Service Brokerage Co., representing New Era Milling Co.

TENNESSEE

Chattanooga, Tenn.—The H. G. Hastings Co., feed and seed dealers, has moved to larger and newly remodeled quarters on Cherry St., John W. Pool, local manager, announced.

TEXAS

Fort Worth, Tex.—National Feed Co. has been formed by J. Bob White, in the cattle business, and T. E. Klein, the latter for many years with the Interstate Feed Co. which was dissolved Mar. 1.

Stamford, Tex.—Stamford Mill & Elevator, one of the city's oldest business establishments, was sold early this year by W. W. Scott to Cecil Gray and Fred Gray. E. G. Keese and R. C. Ricks will enter the partnership with the Gray brothers.

Austin, Tex.—By a margin of 10 votes the House of Representatives March 19 passed to final reading, after four hours' bitter debate, a bill outlawing the closed shop in Texas. The legislation was aimed to guarantee returning soldiers the right to work without paying dues to a union organization. The bill proposes that no one shall be discriminated against by an employer because of membership or non-membership in a union. An employer may not enforce different hours of work, conditions of work, or pay upon workers. No employer may enter into a contract requiring employees to be union or nonunion. Exempted from terms of the bill were workers covered by the national railway act which prohibits a closed shop.

Galveston, Tex.—Fonley W. Parker, widely known in the grain and milling industries, recently resigned as general manager of the Galveston Wharves after 19 years and has been succeeded by E. H. Thornton, former general manager of the New Orleans Traffic & Transportation Bureau, who has been appointed vice-chairman and general manager. During Mr. Parker's management the 6,000,000-bu. grain elevator of the Galveston Wharf Co. was erected, one of the finest grain houses in the United States. He is a former president of the American Ass'n of Port Authorities. More than 100 Galveston and Texas City friends of Mr. Parker honored him with a testimonial luncheon at the Buccaneer Hotel on the occasion of his retirement from the Galveston Wharves.



International Elev. Co., Perham, Minn.

When you employ us, our skill, experience and buying power safeguards your interest. Before building or remodeling, find out what we can do for you. Costs nothing. Write today.

T. E. IBBERSON COMPANY
Engineers and Contractors Minneapolis, Minn.

We Save You Money

Kerrville, Tex.—L. A. Morrow, proprietor of the Kerrville Milling Co., has moved his business to a new location at 505 Clay St.

WISCONSIN

Casco, Wis.—The B. & H. Milling Co. has changed its name to Walter Hanmann Milling Co.

La Farge, Wis.—The Doughboy Feed & Seed Store operated by Fred Major held a grand opening on March 10.

Mayville, Wis.—The Mayville Feed Mill, owned by the Chas. Mann Co., was sold recently to Emmett Glenn of Milwaukee.

Baraboo, Wis.—Peck's Feed Store, Duane Peck manager, held a grand opening recently following extensive remodeling of the store.

Ontario, Wis.—The Farmers Union sponsored a meeting in Community Hall recently when it was decided to purchase a feed mill here. A temporary committee of volunteers was appointed to sell stock for that purpose.

Luxemburg, Wis.—The Luxemburg Milling Co. has increased its purposes to include dealing in flour, feed, grain, farm products and supplies, coal, wood, cement and building materials. It reduced its directors from five to three.

Janesville, Wis.—A soybean processing plant is planned to be built here, with work to start next October, Ralph Wells, Monmouth, Ill., announced. The new plant would have a processing capacity of 1,500 to 1,800 bus. of soybeans daily, and storage for 75,000 to 100,000 bus. Part of the financing will be done locally. The necessary priorities and permits from the government agencies involved have been requested.

Blair, Wis.—The elevator, feed mill and office owned by Prie Olson burned recently with a loss estimated by Mr. Olson at \$40,000. Stock destroyed included a carload and a half of oats, a carload of corn, one of brewers' grain and a quantity of commercial feed. The loss is covered by insurance. The 75 ft. high elevator was built 45 years ago by the old Cargill Grain Co., and was purchased by Olson in recent years, who operates elevators and stores also at Whitehall, Taylor and Eleva, where customers of this area will be taken care of until such time as the local property can be rebuilt.

Menomonie, Wis.—The Wisconsin Milling Co.'s flour mill, started in 1857, oldest industry of Menomonie, of which E. Oliver Wright has been president since 1906, has closed its operation. Changing economic conditions have brought about closing of the flour mill, Mr. Wright stated. These changes had been appraised for some time and it was decided about a year ago to sell the feed plant, the latter purchased by Robert L. Pierce subsequently, and now operating as a new company known as Wisconsin Milling, Inc. Mr. Wright explained that all major brands of flour made by the mill will be kept alive and flour will be packed under these brands by responsible Minneapolis mills. It is planned to sell the mill and remove all machinery.

MILWAUKEE LETTER

Jos. J. Boucher, manager of the local branch office and warehouse of Russell-Miller Milling Co., is confined to Mount Sinai Hospital following a sudden illness.

Carl A. Houlton, LaBudde Grain & Feed Co., was nominated for re-election to the presidency of the Milwaukee Grain & Stock Exchange at the annual caucus held March 17. Other officers nominated for election April 2 were: H. K. Franke, Franke Grain Co. first vice-pres.; C. F. Coughlin, the Riebs Co., and R. G. Bell, W. M. Bell Co., second vice-presidents; H. A. Plumb was re-nominated for sec'y and treas. Directors nominated were: Anton Pitrof, G. W. Winston, Robert H. Lamb, Donald D. Brown, Normal L. Witt, John G. Davis and Donald R. Sander. Three will be elected.

Froedtert Grain & Malting Co. net income in the six months to Jan. 31 was 75 per cent greater than in the corresponding half of the preceding year, Kurtis R. Froedtert, president and chairman of the company, announced March 14. A net income of \$460,623 for the period amounted to \$1.07 a share on the com-

pany's 426,787 shares of common stock, and compared with a net of \$263,252, equal to 53c a share on common in six months to Jan. 31, 1944, after dividends paid on preferred stock redeemed during that period. Net sales for the latest half year period were \$12,645,702; in the comparable period a year earlier, \$7,430,641.

Development of Grain Inspection In the U.S.A.

By WILLIS B. COMBS, economics section of extension service of U. S. D. A.

Since 1916 grain inspectors in the United States have operated under federal law. No one in the grain business at present who is less than 50 years of age has any personal knowledge of the handicaps to country dealers caused by grain inspection systems before 1916.

Some of us who produce and handle grain now may object to grain grading on the ground that it is annoying and impractical. But when we study the early history of grain inspection and see some of the difficulties in those times, it is easy to see that the present grain grading system does facilitate the marketing of grain at country points.

No Government agency thought up the system for grading grain. Grain grading was invented by grain dealers themselves. They had grain grades before they had test kettles. They had grain grades even before they had grain inspectors, and fifty years before they had moisture testers they graded corn "too damp for No. 2."

The grading system was not established in one single operation or by one single individual. It was put together piece by piece. Some of the pieces were found faulty and were discarded. Others remain to this day in the grading system.

EARLY QUALITY TERMS.—Such descriptive terms as "Common," "Choice" and "Prime Milling" were used in market quotations and the early lake shipments of bulk wheat were invoiced as spring or winter wheat. Shipments by lake between Chicago, Milwaukee and Buffalo had been carried on for five years when the following item about western wheat was published in a Buffalo paper in 1843: "We all know its good qualities, but there is some poor raised and some farmers are less careful than others to keep their grain clean. If good and bad, sand and clay, are all thrown into a vessel's hold, it cannot be very satisfactory to those who buy the cargo for good clean wheat."

The Chicago Board of Trade was organized in 1848. In 1850 for the first time, the wheat crop exceeded 100,000,000 bus. One thousand reapers were turned out by the McCormick factory in 1851. Building of the railroads began, and bulk handling on the lakes increased.

THE FIRST GRAIN GRADES.—The first attempt at grading was embodied in a resolution adopted at the semi-annual meeting of the Chicago Board of Trade Oct. 6, 1856. It stated that the standard wheat grades should be "White," "Red" and "Spring" prime quality, and that the variation from prime quality should be specified.

The Board at that time had inspectors for fish, provisions and flour, but no provision for grain inspectors was made in the resolution. However the next year, 1857, grain inspectors were appointed and the spring wheat was divided into three grades, namely "Club Spring," "No. 1 Spring," which was to be standard, and "No. 2 Spring." Here for the first time numerals were used in grain standards. Incidentally, the charges for inspection were set at this time at 10 cents per carlot or 25 cents for each canal boat. By July of the same year, a "Refuse" grade was added to the wheat grades, and grades for corn, oats, and barley were also established with simple definitions for each grade. For example, "No. 1 Oats, to be clean

and sound." "Rejected Oats, unsound, and too dirty for No. 1."

One of the reasons for the adoption of grades and a demand for their uniform application was shown in a report of a committee appointed by the Board of Trade to study the situation at the time. The committee reported as follows:

"There is no doubt of the fact either that some parties buying grain in the country are in the habit of mixing at times, oats, rye, barley, screenings or damp and unmerchantable wheat with that of sound and good quality, and that when sent here it has brought about the price of standard wheat. Rejected was often graded as standard, or even sometimes as 'Extra' thereby injuring the standing of our grain abroad and at home."

This over-grading was possible because there was no one charged with directing the work of the several grain inspectors.

THE YEAR 1858 was an important one in grain inspection. Chief grain inspectors were appointed at Chicago and Milwaukee. The first grain trier was made in 1858 by a tinsmith, who covered a broomstick with tin and cut several holes in the side to admit the grain after the withdrawal of the broomstick. The trier was used by an elevator foreman at Chicago. Not until 1860 did the grain inspectors take samples or issue certificates. Then the chief-inspector improved the broomstick trier by making one of copper and making it six feet long so that canal boats could be sampled. Samples were drawn and certificates issued, and by 1863 inspectors were required to make their reasons for grading fully known by notations on their books.

TEST WEIGHT APPEARS.—The test weight was first used at Milwaukee. The Milwaukee grades of 1858 included test weight as a factor in the spring wheat grades. The Chicago grades of 1857 had recognized rye as a grade factor in winter wheat. In 1859 Chicago added chess, or cheat, as a factor in the winter wheat grades, and added test weight to the spring wheat grades. Frequent changes were made in these test weight requirements during the year 1859. Finally, during the year 1860, the following rule was adopted at Chicago:

"That the inspectors continue to adhere to the present standards for grain inspection, but that in the case of spring wheat, discretionary power be given to inspectors regarding the test weight which may be varied when it is apparent injustice would be done by adhering strictly to the standard adopted."

THE FIRST COLOR CLASSES AT CHICAGO.—In 1860, the corn grades were revised to provide for three grades, "Pure White," "Pure Yellow," and "Mixed." It was stated that farmers would be thus encouraged to produce pure types of corn. Chief Inspector Stevens in his report for that year, said of the grades:

"It is my opinion as they are now established, both as regards wheat and corn, that great wisdom has been displayed and correct conclusions arrived at. A frequent changing of grades should, if possible, be avoided."

FOUR OTHER MARKETS BEGIN GRADING.—Between 1858 and 1865 grain grades were adopted and chief inspectors were appointed in Detroit, Toledo, Cleveland and St. Louis. At first these newly established systems of grading operated smoothly under the chief inspectors, but in time discontent and dissatisfaction crept in from several sources. The Chicago

(Concluded on page 232)

Better Seeds Thru Teamwork

By FRED W. KELLOGG, Milwaukee, Wis.,
before International Crop Improvement Ass'n

Speaking at meetings of agronomists is not a new experience. In fact, I might be considered a pioneer in this field. I had a part in a program of Western Regional Alfalfa Conference of the International Crop Improvement Association in Madison in 1935, when I discussed "Alfalfa from a Marketing Standpoint." But before that, on November 27, 1927, I spoke before a group meeting of the American Society of Agronomy, here in Chicago. Two agronomists and I addressed ourselves to the subject "Seed Improvement and Distribution." Everything said on both of those occasions has long since been forgotten. In this discussion, I shall refer to passages from that address in 1927, to illustrate how unsolved, troublesome problems of one decade persist thru succeeding decades.

In 1927, agronomists and seedmen felt the need, as they do now, for closer contacts, and a co-operative attitude towards problems common to both. The functions each of these groups perform can be likened to an industrial set up. YOU conduct research and planning, and direct production: WE maintain manufacturing and processing facilities, and specialize in sales promotion and distribution. These related services should be co-ordinated. But to accomplish this will require more than an academic discussion each 17 years. Of co-operation and mutual understanding, I said to the agronomists in 1927,

"Conferences such as this would be of untold value, if they served no other purpose than to promote closer acquaintanceship between the agricultural worker and the seedmen who are devoting their lives to the service of the country's most important industry. Better acquaintanceships invariably break down prejudices, and create a sympathetic interest and understanding of common problems. There are few problems, no matter how complex, that will not yield eventually to the close teamwork of a group of conscientious men. Questions relating to the seed supply will not prove an exception, if we always keep in mind that the interest of agriculture is paramount in every situation."

I believe these thoughts are as applicable to any joint efforts we may undertake now, as when they were expressed long ago.

I find this passage in my address in 1927,

"We seek means by which seeds may be improved toward the end that our farmers may enjoy larger yields per acre and a lower unit production costs. Double the yield, and the costs are almost cut in two."

In the meantime, the use of hybrid seed corn and the seeds of the new and approved varieties of oats, wheat, flax, sorghums, and other crops have increased yields and reduced production costs, almost to the goals I suggested.

LEGUMES? The problem at the moment seems to be to find enough of these seeds to supply the needs of our own country, and a moderate amount for our allies. Farmers in the deficit seed areas do not demand improved varieties either. They would be content with the "run-of-the-mill" kind we usually have had in abundance down thru the years. Last season, and again this season, seedsmen have not been able to accumulate nearly enough seed to supply their established customers. Our allies were only partly supplied last year. This year, they will get none of some kinds, and much less than they need of others. What will happen next year, should the production of some of the legume seeds again be less than our minimum needs? Government forecasts seem to indicate a large crop of red clover seed was harvested this season. The production of sweet clover is said to be moderate, alsike and alfalfa, somewhat less than needed. But where is this seed? Very little of it is moving into the established channels of distribution in some territories.

Many questions suggest themselves in this connection:

Were these legume seeds produced in the quantities forecast?

If so, why is so much of it being held back on the farms of the producers?

Are our legume seed production methods adequate for safety, or is too much left to chance?

Has the acreage of these legumes in the usually stable seed-producing areas been diverted to other crops as a result of war food production programs?

What has happened to alfalfa seed production in South Dakota, Minnesota, and Idaho, and alsike seed production in Wisconsin, Michigan, and eastern Canada?

Must we be content with average red clover yields of a bushel or less per acre?

Are these meager yields the result entirely of weather conditions, or are there agronomic reasons?

Is there cause for alarm in the legume seed production outlook? I am sure there is.

Perhaps your crop improvement men have the answers to these and other questions which might be asked. In my judgment, the whole problem of legume seed production should be jointly examined by our respective groups.

DEVELOPMENT OF IMPROVED STRAINS and varieties was making rather halting progress in 1927. The marketing of certified seed was under experimentation. Of these developments I said,

"At the end of the era of free or very cheap land, agriculture in all countries has always turned to improved methods to meet the demand of an increasing population. Better farm animals, more efficient equipment, and better seeds have marked a stage in this development here as in the older countries. A demand is being created for the seeds of the new and improved varieties which have been developed from time to time, and for seed corn best adapted to a given area. Experiments have been made in the distribution of such seeds, and these experiments have not always proved effective or economical. Distribution, to be efficient, must be accomplished at a minimum of waste or of unproductive effort. Obviously, specialized items may be marketed more economically in connection with a general line of kindred products. This holds true of the purebred seeds and seed grains you have been developing. The seed trade is in position to accomplish this for you more efficiently, and at a lower cost than any other agency."

"Producers of such seeds often fail to realize that the extravagant value they place upon them prohibits their wide sale. It is a matter of education in the value of such seeds to the consumer, and what may constitute a fair and reasonable return to the producer. After the supply has been built to commercial quantities, the premium to be expected above the value of common varieties must be more clearly understood. Some plan might be formulated to safeguard a reasonable purity of the strain and means provided to protect it through the avenues of distribution from producer to consumer. Reliable, responsible seedsmen may be found in every area of consumption, willing and anxious to market pure-bred seeds at a minimum expense, and for a reasonable margin of profit."

The development of improved strains and varieties has made great strides since 1927. So far, these developments have been mostly in the bread and feed grains. The use of the seeds of improved varieties of grain simplified the step-up from peace-time to war-time production. When peace comes, fewer acres will be needed to supply our domestic needs for the bread and feed grains. The maintenance of grain production at present levels would again create burdensome and unmanageable surpluses. For a year or two after the war ends, this country might reduce these surpluses by exports to other countries under subsidies, or by outright gift. The give-away policy will finally end when the war-torn countries again resume grain production to supply the needs of their people. There is no sound reason to believe this country can permanently maintain a strong position as an exporting nation of wheat and other grains. When our agricultural economy is again adjusted to our country's normal needs, the trend will be toward a grassland agriculture.

As this trend develops, there will be a demand for better legume grass and pasture plants. This will provide a further stimulus to the comprehensive plant breeding programs you now have in progress. Thoughtful, progressive seedsmen sense that the agricultural developments, in the years ahead, will profoundly alter the character of their businesses. These seedsmen know they must become specialists, not only in the distribution of the new seeds this type of agriculture will require, but in the production of these seeds as well. Multiplication and production of the seeds of improved types and varieties of legume and grass seeds will doubtless require a somewhat different set-up than has been utilized for the seed grains. For the most part, larger acreages will be required than are available on most farms of the middle west. Large scale reproduction of these seeds will have to occur where large acreages are available, and the necessary isolation can be provided. This combination of large acreage and complete isolation will usually be found in the western and some of the southern states. Some seedsmen have made initial experiments in the production of certain seeds, the usual supply of which was cut off by war conditions. Another group of seedsmen has made an outstanding contribution to the war effort in the production of vegetable seeds on a tremendous scale. There are many seedsmen who can qualify themselves to contribute effectively to your production programs. They have the vision, experience, facilities, and capital to enable them to produce, process, and distribute seeds of improved strains and varieties of the legumes and grasses, when these have been developed by your members, and increased sufficiently, to warrant reproduction on a commercial scale. I believe a joint venture in this field would prove an unexpected impetus to your plant development programs.

CERTIFIED SEEDS.—In 1927, I mentioned the experiments which had been made in the marketing of certified seeds. In the meantime, the distribution has been greatly expanded. However, the interests of agriculture would be best served if the seeds of improved varieties could be made available for the use of a constantly increasing number of farmers. If the production programs can be stepped up, the merchandising services of the seed industry could be utilized to advantage for the very good reasons I stated to the agronomists in 1927. Seedsmen have literally thousands of retail dealer outlets. I dare say, more farmers consult these retail seed dealers in matters relating to their planting programs and seed requirements than any other source of seed distribution. I believe the cause of your seed improvement programs could be advanced immeasurably thru an intelligent use of these merchandising facilities. This, too, seems worthy of consideration and joint study.

GOVERNMENT PROGRAMS, dealing with the production and distribution of seeds, are of interest to your members and ours. There have been incentive programs, intended to stimulate production, loan prices, ceiling prices, production goals, and what not. Your association and ours have been represented upon some of the advisory committees to governmental agencies. When the workings of some of these programs are examined, it is obvious the combined experience and judgment of our groups should have been given greater weight in the final decisions. The only objective of an incentive seed production program should be to produce more seed, and to make it available where, and at the time it is needed. The original plan of the incentive program to produce more legume seeds was sound. It was altered somewhat in the process of final adoption. There has been some confusion in its administration. The result is that too much legume seed is frozen in the producing areas. The incentive plan to stimulate production of certain legume seeds will be repeated for 1945. Let us hope there will be enough close team-

(Concluded on page 233)

Field Seeds

SIOUX CITY, IA.—Carleton M. Magoun, pres. of the Michael-Leonard Seed Co., died March 13.

WASHINGTON, D. C.—O.P.A. Order No. 260, on pricing agricultural insecticides has been revoked.

MOBILE, ALA.—The Buerger Seed Co., Chas. Buerger owner and manager, has opened a new seed store.

TALLULAH, LA.—S. H. Clinton, released from the Army, has bought the seed store of Delma Devine, who retains the seed cleaning business.

ASTORIA, ORE.—The building occupied under lease for the past 10 years, 100 by 150 ft., has been purchased of the city by the Engbretson Seed Co.

SPOKANE, WASH.—Edwin B. McBride, office manager for Morrison Brothers Seed Co., died at his home just four days after his marriage.—F.K.H.

THE W.F.A. during the week ending March 17 acquired 4,499,160 lbs. of various field seeds for export to liberated areas, including 9,000 lbs. of red clover seed.

OLIVIA, MINN.—Dr. Wm. Brown, biologist and field man for the Rogers Bros. Seed Co., has entered the employ of the Pioneer Hybrid Corn Co., at Des Moines, Ia.

COLUMBIA, MISS.—Columbia Feed & Seed Store is the name chosen for the Shankle Feed & Seed Store by Jack Spiers, who bought the interest of his partner, C. G. Shankle.

TORONTO, ONT.—The Canadian Seed Trade Ass'n at a special meeting recently decided to file a protest with the Royal Commission on Taxation of Co-operatives against taxation of privately owned business while exempting co-operatives.

ST. MARYS, KAN.—The new hybrid seed corn plant which is now nearing completion, is expected to be in operation early in April. Processing now is being done by workers in the old Erbacher warehouse which was purchased by the Union Central Co-op Exchange for that purpose.—G.M.H.

MINNEAPOLIS, MINN.—Valuable information on the choice of field seeds for planting in 1945 as determined by the experiment stations of the northwestern states and the Northwest Crop Improvement Ass'n is being circulated in printed sheets by the Minneapolis Grain Commission Merchants Ass'n.

COFFEYVILLE, KAN.—Clyde Frazier of the Frazier Seed Co. has sold his interest in the company to Dan E. Beadell and J. T. Poore, retaining the cleaning plant and warehouse building which he has leased to the firm. Mr. Beadell had been associated with him in the seed business for the past 13 years. Mr. Frazier will continue in a full time advisory capacity.—G. M. H.

SPOKANE, WASH., March 13.—Reduction in the acreage planted to peas this spring has about caused alfalfa seed to disappear and a shortage of clover and alsike seems certain, says Sam Gohrman, manager of the seed department of Boyd-Conlee. Most grass seeds are plentiful now, but it is difficult to determine what will be the situation later in the spring, because to date few farmers have purchased seed. A shortage is appearing however in mountain brome and big blue grass seeds. The shortage of alfalfa seed is attributed to a reduction in production by 15 per cent last year and an increased demand this spring.—F. K. H.

GILMAN, ILL.—Albert Sandquist, of Paxton, who recently resigned his position with the Ford County Crop Improvement Ass'n's hybrid plant in Piper City, is now associated with the Frey Hybrid Corn Co., in Gilman.—P. J. P.

SPOKANE, WASH.—Mrs. Ruth S. Anderson, president of the Inland Seed Co., died in a local hospital March 10. Mrs. Anderson who was the daughter-in-law of John Anderson, for many years head of the firm, has been head of the business for some time.—F. K. H.

Sweetclover Seed Ordered Destroyed

Three bags of sweetclover seed shipped on Nov. 6, 1944, by the Jenks-White Seed Co., Salem, Ore., to Sacramento, Calif., were recently ordered destroyed by the United States District Court for the Northern District of California.

The Jenks-White Seed Co. shipped the seed labeled "For Processing"; whereas, the consignee did not purchase the seed for processing and the price paid was for reclaimed seed. The seed was found to contain whitetop, *Lepidium draba*, a primary noxious-weed seed in the State of California, at the rate of 2,706 seeds per pound of sweetclover.

Seeds containing primary noxious-weed seeds are prohibited from sale in California and are therefore prohibited by the Federal Seed Act from being shipped into California. The Federal Seed Act does not permit the interstate shipment of seed labeled "For Processing" unless the seed is shipped to a seed cleaning or processing establishment for cleaning or processing.

Re-Labeling under Federal Seed Act

Among the several amendments proposed in the Federal Seed Act is the following:

201.228 Add the following: "Any correction of the labeling upon the containers shall be done under the supervision of the Department of Agriculture at the expense of the importer who shall also reimburse the government for the expense of travel required to perform such supervision. When a representative of the Department of Agriculture finds upon examination of seed that it is incorrectly described on the invoice presented at the time of entry, a finding of 'false labeling' under the Federal Seed Act of Aug. 9, 1939, will be made. The seed will be refused admission until after the importer has given satisfactory assurance to the Department of Agriculture that he has taken appropriate steps to file with the collector of customs at the port of entry a corrected customs invoice describing the seed in terms which will not constitute 'false labeling.' Upon receipt of such assurance, the Department of Agriculture will notify the collector of the nature of the 'false labeling' and that the seed may be granted admission. After such notification, no question of redelivery of the seed for violation of the provisions of the Federal Seed Act will be present, but the importer will be liable for the payment of liquidated damages under the bond filed in connection with the entry unless a corrected customs invoice is produced within the time provided for by law or regulations."

Oats Varieties and Rust

By T. E. STOA, agronomist N. Dak. Agr. Exp. Station

Some significant changes affecting the production of oats in eastern North Dakota have taken place in recent years. Leaf (crown) rust infection has been present in epidemic proportions each year since 1941 and much damage has resulted to varieties lacking in resistance to this rust. Early varieties, which in previous rust years escaped damage, have been seriously injured, as have the later maturing sorts. Moderately resistant varieties, like Rainbow, have shown an increasingly heavy rust infection since 1941.

As the newer rust resistant varieties have come into increasing use the loss from rust has been greatly reduced. Varieties like Vicland, Boone, Tama and Marion have now largely replaced Gopher in those sections of the state where early varieties have preference. These varieties afford a degree of protection against rust that is needed, especially in the southeastern and eastern sections of the state.

The oat crop may also be injured by stem rust, but this rust has been less common than leaf rust in recent years. Fortunately many of the varieties now available which resist leaf rust are also resistant to stem rust.

Of the early varieties, Vicland, Boone, or Tama have most resistance to leaf rust, therefore have yielded relatively better than most varieties. These varieties also have good resistance to stem rust. They are yellow oats, mature about the same as Gopher, or slightly earlier, and have a rather short, but fairly strong, straw.

Marion, a white oat, is resistant to many races of leaf rust, but susceptible to some races already present in this area. In the Fargo plots Marion has carried an increasing amount of leaf rust the last three years, indicating that races which can attack it are already generously present in this area. Because Marion grows taller, and appears to have a good capacity for yield when not severely injured from rust, it may be more satisfactory on the lighter soils in areas where earliness is desired and the hazards of rust are not so great. Rainbow and Marion have about the same degree of resistance to leaf rust. Both are resistant to stem rust. Rainbow grows quite tall, yields relatively well, ripens 2 to 4 days later than Marion and has a yellowish-white kernel. Both Marion and Rainbow lack some in strength of straw when plant growth is heavy.

**BUYERS AND SELLERS
ALL VARIETIES
FIELD SEEDS**
ASK FOR PRICES
FUNK BROS. SEED CO.
BLOOMINGTON, ILLINOIS

CRABBS REYNOLDS TAYLOR CO.
CRAWFORDSVILLE, IND.
GRAIN
Clover and Timothy Seeds
Get in Touch With Us

WE ARE BUYERS AND SELLERS OF
FIELD SEEDS
GEO. P. SEXAUER & SON
Brookings, So. Dak. Des Moines, Ia.

ED. F. MANGELSDORF & BRO., Inc.
ST. LOUIS 4, MISSOURI

Buyers and sellers of
Sweet Clover, Alfalfa, Lespedeza, Clovers, Timothy, Grasses,
Fodder Seeds, Sudan Grass, Soy Beans, Cow Peas

Dealers Join in Pushing a Good Malting Barley

The Rahr Malting Co., of Manitowoc, Wis., with commendable enterprise is advertising in the local newspapers the new variety of malting barley that has been successfully grown in Manitowoc County during the past two seasons, informing growers that a limited supply of seed is offered on contract.

Promoting Seed Sales Thru Gardening Classes

Topeka, Kan.—Gardening classes held at night, consisting of four sessions are being held at Topeka High School. This course is given especially for victory gardeners and is sponsored by the Victory Garden group. It will be taught by F. E. Carpenter, vocational agriculture instructor at Highland Park school. The first meeting was on soil and fertilization. The second on the selection of seeds and varieties, and on planting problems and dates for planting. The last meeting will cover garden insects and diseases and their control. Seed dealers will promote these classes to the advantage of everyone.—G. M. H.

Prizes for Planting Certified Seed Wheat

Mitchell County, Kan., farmers are doing their best to keep their county in step by selecting approved wheat varieties. As a starter, they organized a Blue Ribbon Seed Wheat Committee with W. W. Hazeltine as chairman. Their aim is to obtain and distribute certified Pawnee seed wheat to other growers. The committee distributed 245 bus. of certified Pawnee wheat to 30 growers to be planted on 356 acres under supervision of the committee. All the planted acreage will be certified this year. A potential supply of 10,680 bus. of certified seed can be realized in the county if the wheat will produce 30 bus. of wheat per acre. Mitchell county has a total wheat acreage slightly above 200,000 acres with Tenmarq the dominant variety.

The Mitchell county group is co-operating with the Kansas Wheat Improvement Ass'n and the Kansas Crop Improvement Ass'n by offering prizes of \$20, \$10, and \$5 in a local Blue Ribbon Seed Wheat contest. The prize money was obtained from the sale of certified seed grown last year. The prizes will be awarded

on the basis of the standard score card. An agreement has been reached by the committee to set a price of \$3 a bushel for all seed wheat certified by the Kansas Crop Improvement Ass'n.—G. M. H.

Oat Varieties Recommended for Iowa

New oat varieties, Tama, Boone, Control and Marion, added an estimated 35-40 million bushels to the 1943 Iowa oat crop. In community grain trials in 1943, Tama, Boone and Marion outyielded Gopher and Iowa 105 by 13 bus. per acre.

By the simple expedient of universal adoption of these new oat varieties, results of six years testing here in Iowa show that it is possible to increase oat production 6 bus. per acre in years when crown rust damage is light (good oat years) to 13 bus. per acre increase in years when crown rust damage is severe (poor oat years). This was amply borne out in 1943 when with 700,000 oat acres shifted to other crops (and not all the oats planted to the new varieties), yet with this reduced acreage (4,900,000 acres) Iowa produced 3,000,000 more bus. of oats than the ten-year average, 1931-1940, when Iowa had more acres (as high as 6 million) in old varieties of oats. In 1943, about 65 per cent of the Iowa oat acreage was planted to these new varieties. Indications are that 85 per cent of the oats in Iowa in 1944 will be of the new varieties.

Experiments on the new varieties, however, definitely prove the value of seed treatment. Of 10 varieties tested in 1942 (Iowa 105, Hancock, Marion, Vanguard, Sac, 3607, Boone, Control, Tama, Vikota) the yields were increased 12.5 per cent at Copesville and 9.7 per cent at Kanawha. This represents an average increase of 6.4 bus. per acre due to seed treatment. Since only one of the varieties tested (Iowa 105) was susceptible to smut, the increase in yield represents increase due to control of soil borne diseases. Thus from the standpoint of producing more feed and food units, it becomes extremely important to recommend seed treatment on all new varieties of oats using New Improved Ceresan at the rate of ½ ounce per bushel.—Iowa State College of Agriculture.

THE SOYBEAN acreage goal for 1945 has been set at 10,757,7000, which is a little more than that harvested in 1944, 10,502,000 acres.

Prosecutions Under Federal Seed Act

The U. J. Cover Seed Co., of Mt. Gilead, O., was fined \$200 on a plea of guilty to having falsely labeled timothy seed in a 100-bag lot shipped to Cynthia, Ky., the labels indicating 90 per cent germination, while only 22.75 per cent was found.

M. B. Diederich of North Ridgeville, O., was fined \$300 on a plea of guilty to having falsely advertised and falsely labeled soybean seed. The advertisement contained excerpts lifted from experiment station reports and so placed together as to create the false impression that the so-called McClave variety was found to be high in yield and oil content as compared with other varieties. The seed was found to be the old Midwest variety which was discarded by farmers many years ago because of its inferiority.

A. N. Moye of Barnesville, Ga., shipped 500 bags of oat seed to Chattanooga, Tenn., labeled to show 86 per cent germination, tho tests showed 49 to 85 per cent. The U. S. Marshal seized 335 bags which were subsequently released under bond conditioned upon the seed not being sold contrary to the Federal Seed Act or state seed law.

The Buchanan-Cellers Grain Co., of McMinnville, Ore., shipped to Louisville, Ky., 300 bags containing 10 lots of ryegrass seed, of which 21 bags were seized and ordered destroyed, on account of quackgrass, which is a noxious weed in Kentucky.

The Imperial Seed Co., of Clear Lake, Ia., was fined \$110 and costs for shipping to Illinois and Missouri 11 lots of oat seed of the Legacy, Erban and Cartier varieties advertised to yield 75 to 100 bus. per acre on land that would produce only 35 to 50 bus. of other varieties grown in Missouri.

Increasing Distribution of Mida Wheat

The North Dakota Agricultural Experiment Station had the co-operation of 803 farmers in the further increase of Mida wheat in 1944.

The distribution last spring was 15,315 bus.

From reports of the 1944 increase now on hand it is estimated that about 250,000 bus. of Mida seed will be available for sowing in 1945. A considerable portion of this has already been allotted for 1945 sowing. Since the demand for this seed is large, it has seemed advisable to limit applications to 60 bus. The production of Mida expected in 1945 should be sufficient to allow any one to obtain seed for 1946 sowings and in about the quantity desired. Therefore, the redistributions now made, and the increase obtained therefrom, will not be under contract.

At Langdon Mida yielded 35.8 bus. per acre, compared with 31.2 bus. for Thatcher.

Farmers cooperating in the increase in Mida this year and observing its behavior under their farm conditions, generally commented favorably on its satisfactory yield, strong straw, resistance to weathering and favorable test weight. While some commented favorably on its "easy" handling in harvesting and threshing, others who rely on straight combining as their method of harvesting, pointed out a tendency to shatter if left standing too long.

Any one wishing to obtain seed from some source located in his county should apply to the county agent in his county. In counties where there is no county agent applications may be made directly to the Department of Agronomy, Agricultural Experiment Station, State College Station, Fargo.

From the observations available so far it seems reasonable to conclude that Mida will have its largest place in the eastern two-thirds of the State and elsewhere as a replacement for Rival and perhaps other bearded wheats now grown.



Delta Warehouse Co.
Stockton, Calif.

HESS Direct Heat Drier and Cooler

gas fired
with auxiliary oil
burner, installed by

DELTA WAREHOUSE CO.
Stockton, Calif.

They're Profit Makers

HESS WARMING AND
VENTILATING CO.
1211 S. WESTERN AVENUE
CHICAGO, ILLINOIS

Development of Grain Inspection in the U.S.A.

(Continued from page 228)

Tribune of July 24, 1865 contained a letter from a country shipper complaining about the term "otherwise in good condition." He writes: "There are certain evils connected with the present grain inspection system which demand publicity. Being a sufferer from only one, and that the most prominent one, qualifies me to speak intelligently. By the present system all spring wheat weighing 58 pounds to the bushel and otherwise in good condition grades 'Chicago Extra' and all weighing 55 pounds to the bushel and otherwise in good condition grades No. 1. Advantage is taken of the discretionary power here conferred as to the good or bad condition of the wheat to make capital of."

The Prairie Farmer in July 1866 said of grading "(the system) may be necessary and well enough perhaps if honestly carried out, but as practiced is a fraud of such magnitude as only the very richest farmers can stand."

FIRST STATE GRAIN INSPECTION LAW.—In order to correct some of the alleged abuses, the state of Illinois provided by law for uniform state inspection by the Railroad and Warehouse Commission in 1871. The new chief inspector opened office at Chicago on Aug. 7, 1871, and one of his first acts was to reject two boatloads of grain. He made a ruling that mixed or doctored grain must be graded as of the lowest ingredients.

The new system apparently worked satisfactorily, and the chief inspector in his report for 1874 states, "The standards of inspection came to be regarded as very good, and bade fair to be adopted in all seaboard ports which receive grain from Chicago."

Since the grain inspection department in Illinois was now under legislative control, you might be interested in the account of the grading of a car of corn on moisture, which occurred in the year 1879. The car was shipped from Bellflower to Chicago, and was graded "Rejected" on account of moisture. The shipper resigned the car to Springfield, Illinois, in order that the legislative committee might judge for themselves. At Springfield the car was examined by a committee from the State legislature and adjudged "too damp for No. 2" and the Chicago inspection upheld. This occurred 27 years before moisture testing machines came into use.

FURTHER SPREAD OF GRAIN INSPECTION.—Between 1871 and 1884, grain inspection and grading was established by Boards of Trade at Cincinnati (1871), Peoria (1872), Cairo (1873), Boston (1873), New York (1875), Philadelphia (1876), New Orleans (1881), Baltimore (1882), San Francisco (1882) and Buffalo (1884). Many of these cities secured grain inspectors from Chicago for their inspection departments.

STATE GRAIN INSPECTION.—While the Illinois grades on the whole may have satisfied the farmers in Illinois, they were not satisfactory to the farmers in Minnesota. A report of the Minnesota Railway Commission for 1873 said, "The best grade of wheat shipped from Minnesota commands about 10 cents more per bushel in the New York market than No. 1 wheat from Milwaukee and Chicago, but Minnesota wheat is sent to Milwaukee and Chicago, tested and thrown into elevators and mixed with the soft wheat of those States. Consequently, its superior grade is lessened or lost." They did not want their wheat "put out of reach of all would-be discriminatory buyers except as mixed."

Minnesota established its own state grain inspection in 1885, and then followed state inspection laws in Missouri (1889), Washington (1896), Kansas (1897), Oklahoma (territorial law, 1899), Wisconsin (1905), South Dakota (1913), Montana (1913), and by 1916 there were 64 points in the United States where grain

was inspected and graded, and 30 different state or trade bodies had established grain standards. No two sets of rules were exactly alike, and some were widely different.

EARLY BILLS IN CONGRESS.—A National system of grain inspection was first proposed in the Congress in 1892. Two bills were introduced in the Senate that were to provide for the federal classification and grading of grain. One of the bills passed the Senate, but failed of passage in the House. Secretary of Agriculture Rusk, in his annual report for that year, said, "Another matter which is the subject of legislation now pending is that of national standards for grain. There is evidence in the correspondence of the Department of a steadily growing feeling in favor of the establishment of such a national standard which will relieve the grower from the annoyance inseparable from the existence of several standards varying in the several grain markets of the country. Unquestionably some system of national inspection and grading under the control of the Secretary of Agriculture should be established and would be without doubt in a very short time accepted and recognized in all the great market centers of the United States."

The next year Senator Casey, of North Dakota, introduced a bill for federal grain inspection. In 1902 Senator McCumber introduced a bill for national grain inspection and grading. President Theodore Roosevelt, in his annual message to Congress in 1907, said:

"The grain producing industry of the country, one of the most important in the United States, deserves a special consideration at the hands of Congress. Our grain is sold almost exclusively by grades. To secure satisfactory results in our home markets and to facilitate our trade abroad, these grades should approximate the highest degree of uniformity and certainty. The present diverse methods of inspection and grading throughout the country under different laws and boards result in confusion and lack of uniformity, destroying that confidence which is necessary for healthful trade. Complaints against the present methods have continued for years, and they are growing in volume and intensity, not only in this country but abroad. I therefore suggest to the Congress the advisability of a National system of inspection and grading of grain entering into interstate commerce as a remedy for the present evil."

GRAIN DEALER' NATIONAL GRADES.—Thirty years ago newspapers contained many comments on the subject of grain inspection. I quote the following written by Mr. R. Lewis, of the Red River National Bank at Fargo, N. D., "Under the present system the farmers are being robbed everywhere of at least one grade on their wheat, and in this way: In the fall of the year when they have to market their grain the inspection . . . is very rigid, and for the last two years it has been impossible to send a better grade than No. 2 or No. 3 Northern, and usually at a pretty heavy dockage. Now were it not for the fact that as soon as the grain is out of the farmers' hands this damnable inspection loosens up on the grades and the elevator people who have graded the grain No. 2 and No. 3 Northern are allowed to deliver this wheat for No. 1 Northern on contract sales."

I quote these comments not to thresh over old straws, but to indicate what did happen when we did not have a national grain inspection system. The Chief Inspectors' National Ass'n was formed in 1902 and recommended a set of grades which were generally adopted. In 1906, a call was issued by the Grain Dealers National Ass'n for a meeting of delegates from the prominent grain exchanges for the purpose of establishing uniform grades. Forty-three delegates attended at Chicago. The convention found its work difficult, but a plan was worked out to be submitted to the various exchanges. The moisture test was recommended in order to make grading more of an exact science and less a matter of guess work.

A second convention was held in June, 1907, and the grain dealers' uniform grades were generally adopted by all grain exchanges. However, the hope for uniformity between markets did not materialize, because there was no cen-

tral authority to settle disputes between the various inspection departments.

FEDERAL LEGISLATION.—More grain inspection bills were introduced in Congress. Most of these bills provided for out and out federal inspection of grain, and all failed of passage. Finally, in 1916, after 14 years of legislative consideration, Congress passed the Grain Standards Act, under which we have operated for the past 29 years. The act provides for the federal supervision of grain inspection. This act was amended once, in 1940, by adding the word "soybeans" to the grains authorized under the act.

FIELD ORGANIZATION.—The U. S. Department of Agriculture has 37 district offices to supervise grain inspection. These district offices are in turn serviced by coordinating field headquarters offices at Chicago and at Portland, Oregon. When the act was first passed there were 64 points in the United States where grain inspectors were located. At the present time, grain inspectors are located at 144 points, and the inspection service is available in 33 States. Last year nearly 2 million inspections were made. Supervision and appeal services are easily obtained so that there is no reason why anyone should be injured by an incorrect grade.

OUR RESPONSIBILITIES.—Those who framed the Grain Standards Act wrote nothing in it about cooperation between the federal department, the grain inspection departments, the state colleges, and the trade. It would have been difficult to do so. However, the Act implies cooperation and coordination on the part of all of us. The act does not provide for a federal inspection of grain, but only for a federal supervision of grain inspection. Responsibility is placed on the federal department to fix the grades and to alter or modify them whenever the necessities of the trade may require, and to handle appeals from the inspectors' grading. The shipper has certain responsibilities in securing inspection and invoicing grades. The application of the grades is the responsibility of the inspectors who are not federal employees. Explanation of the grades and efforts to produce higher grades require educational activities, and the state colleges and extension services are given this responsibility under the Smith-Lever Act.

Improvements in the field of grain marketing and grain inspection depend to a large extent on our ability to work together on common problems.

ELEVATOR operators at Kansas City have promised to use 50 per cent of the empty box cars they receive for the loading of wheat of the C.C.C. for the army. This applies to loaded cars made empty by unloading at the elevators.

OPEN interests in the Chicago Board of Trade rye future as of Mar. 16 were required to be reported to the Commodity Exchange Administration, on accounts exceeding 25,000 bus., with a statement of the character of the account.

I DO NOT pretend that the strongest magnesium alloy is as strong as steel, but it is strong enough to give an ample factor of safety in many situations where heavier metals have been used.—Dr. Willard H. Dow, pres., Dow Chemical Co.

LAST WEEK Washington dispatches quoted officials as predicting that after the war ended there would be a huge supply of surplus food, larger than would be needed for feeding Europe, and that the war's end would leave burdensome food supplies in nearly all positions. This week's news was concerned with heavy immediate necessities ranging to a rather fantastic figure like 140 million bushels of wheat for relief purposes. Quite a contrast! To say the least, the music goes round and round.—Baldwin Elevator Co.

Better Seeds thru Teamwork

(Continued from page 229)

work of the interested groups to make such refinements in the 1945 plan as may be necessary to fully accomplish its sound objectives. In the formulation of future government programs dealing with seed production and distribution, our combined experience should be more fully utilized by the governmental agencies concerned.

WEEDS.—In my talk to the agronomists in 1927, I placed a very strong emphasis upon the "Weed tax" as a staggering burden upon the annual agricultural income. I suggested the loss from this source might annually run to \$200,000,000, or very much more. A weed survey conducted shortly after that proved me to be a master of understatement. The report of the survey placed the annual lien on the agricultural income at \$3,000,000,000, or fifteen times the amount of my rough guess. I do not toss the weed problem into the hopper now in the hope that any effective control program will be formulated. The eradication and control of weeds has small appeal to any group. It excites no one to crusade against it. The problem will become of increasing seriousness down thru the years. Some day, it will emerge as a very insistent "must" for agriculture. Seedsmen are doing a better job than ever in weed seed elimination from agricultural seeds after they are harvested. That is not enough, the problem should be attacked at the source, on the farms where the weed seeds are produced and harvested. The weed problem, it seems to me, is deserving of the thoughtful examination of your group and ours.

INCOMPETENT FARMER SEED PRODUCERS.—Seventeen years ago, I said seed control in this country was pretty much a failure. I consider it to be a greater failure now than it was then. Because of the lack of enforcement, substantially all of the seed planted on the farms where grown, as well as the seed distributed from one farm to another, are, for practical purposes, exempted from the control of regulatory seed laws. The farmer-producer does a much poorer job of cleaning weed seeds from the agricultural seeds he uses himself and sells to others, than he does with the grain he raises. That is, assuming he cleans either of them, which, in too many cases, is extremely doubtful. Farmer-producers lack both the skill and specialized equipment to safeguard themselves and their neighbor customers against the perpetuation and spread of dangerous weeds. Agricultural workers of some states and the federal government continue to insist that all farmers be placed upon a par with experienced seed processors in the marketing of seed. They must know, in so doing, they are insisting upon an increase in the toll taken by the "weed tax." There must be a realization some day that seedsmen perform services which must be utilized on a much larger percentage of the seed planted each year. Unless this is done, and other measures adopted, the weed problem will become progressively more vicious. This appears to be a problem worthy of joint study by your organization and ours.

THE VERIFIED-ORIGIN seed service was originated, and became effective, about the time I addressed the group meeting of the American Society of Agronomy. I expressed the fear then that the distributive system would be overburdened, if legume seeds were required to be verified, and sold under each individual state of origin. I said, "Undoubtedly, the needs of agriculture would be best served under a proper grouping of origins." And I dropped the problem into the laps of those present with this suggestion. Extensive tests might be undertaken by the American Society of Agronomy to determine whether these origins might not be properly stated in terms of the areas of growth, rather than the exact state of origin. Much excellent work has been done by your members to determine the range of adaptability of seed produced in various sections of the country. I know your crop

improvement men advocate the use of certified seed of approved varieties. However, until the production of such seeds is increased far beyond the present levels, common alfalfas, and other legumes will be used in great volume. Sound policy dictates that these seeds be sold to the consumer under some protection as to origin. Regional origins, versus individual state origins, continue to be a troublesome problem for seedsmen. Inventory complications could be greatly simplified under a regional rather than a state system. Perhaps the OPA settled the matter for all time, when it arbitrarily made three groupings of common Alfalfa—Northern, Central, and Southern. For the long run, however, I believe the matter should be settled upon sound, agronomic findings. This, then seems to have a joint interest of your group and ours.

Going back once more to 1927, I said,

"There is little to be gained by throwing any great and useful machine upon the scrap heap, unless something vastly more efficient is at hand to replace it. In the main, agricultural seeds are being handled efficiently and economically, and the existing machinery may be readily adjusted to meet the changing needs of agriculture as they arise. Rather than encourage and support the establishment of new institutions to displace existing agencies, the agricultural workers of the country might more profitably encourage the efficient and progressive seedsmen and assist in the elimination of the weak, inefficient, and undesirable links in the present chain of distribution."

This passage is deserving of the thoughtful consideration of your crop improvement men. When any new seed development project requires assembling, warehousing, processing, and marketing services, sound policy would seem to dictate that existing facilities be employed whenever possible. There will be no economy in the long run in further expanding the already over-expanded, seed-processing plant. This is another problem which would profit under joint discussion.

You will find high idealism in many seedsmen, and a deep pride in their craft. They will be found worthy of your confidence. These men are genuinely sympathetic to the outstanding work your crop improvement men are doing so unselfishly. If given the opportunity, they will lend to your programs their moral support, and assist you in their fulfillment. Individually, and collectively, they will give financial aid to your research programs by supporting research fellowships, or in other helpful ways. It is time to cultivate a better understanding of the type of seedsmen I have described. When that has been accomplished, we will have erased a formidable obstacle to intelligent, unselfish cooperation between our groups.

I venture to hope we will set up a permanent joint committee of our respective groups to agree upon the subjects that lend themselves to intelligent, joint action. In my judgment, our efforts in that direction would prove most effective,

should the American Seed Trade Ass'n engage an agronomist of the highest caliber to act as the co-ordinator of our mutual undertakings.

I hope sincerely we may work harmoniously together toward the right solution to some of them, thus making a valuable contribution toward "Better Seeds Through Teamwork," and a more worthwhile service to American agriculture.

D.D.T. Effective Only Against Adult Weevil

By W. J. DAVIS, Chief Chemist,

Standard Milling Co., Buffalo, N. Y.

We have conducted a series of experiments to determine its effectiveness on the confused flour beetle (*Tribolium confusum*), the insect most commonly found in flour mills.

Our first tests consisted of preparing a 5 per cent solution of DDT in an organic solvent which was used as a direct contact spray. It was applied by a hand spray to a box approximately 18 inches square in which had been placed 100 adult weevils on a thin scattering of flour.

THE SPEED of its action against the weevils was rather amazing, for within five minutes the entire lot was either dead or completely incapacitated. Additional tests were conducted 24 hours later in the same box. Another group of 100 weevils was introduced and a glass cover placed over the box so as to observe the reaction. The effective residual kill retained by the original application of DDT spray soon showed its lethal effect on the second group of weevils.

Another box of similar size was sprayed with 5 per cent DDT solution on its unpainted surface and allowed to stand 30 days before introducing a new group of 100 weevils. It required approximately 24 hours for this lot of insects to succumb. Other tests have since shown the effectiveness in killing weevil is still retained after three months.

ONE PECULIAR FACT was brought to light while conducting these tests and that concerned the comparative immunity of the beetle while it was in the larval or pupal stage. Repeated tests showed that approximately 50 per cent of the larvae were transformed into the pupal stage and then into the adult weevil stage before being killed. Ultimate destruction of the entire lot was obtained, however.

The fact that the beetles were not destroyed until in the adult stage of the life cycle demonstrates that DDT is effective only as a contact insecticide, and that it does not have the ability to bring about an effective kill when the beetle is in the egg, larval or pupal stage of its life cycle. This fact indicates that DDT will not replace fumigants that do attack insects, regardless of the stage of the life cycle.

"RANDOLPH"

OIL-ELECTRIC GRAIN DRIER

The Drier Without a Boiler

ASK THE MAN WHO HAS ONE

THAT'S ALL

MANUFACTURED BY

O. W. RANDOLPH COMPANY

3917-21 Imlay St., TOLEDO, O., U. S. A.

Feedstuffs

SALES of C.C.C. feed wheat have totaled more than 700,000,000 bus. since the beginning of the program in 1942.

THE OIL MEAL ceiling has been amended effective March 17 as to the freight allowance from Decatur, Ill., to points east of the Illinois-Indiana state line.

BREWERS DRIED GRAINS production during February amounted to 15,500 tons, against 15,300 tons in February, 1944, as reported by the W.F.A.



CHECK YOUR FORMULAS with Laboratory Analyses

Protein, Fat, and Fibre
—Feed or Grain—
Analyzed at
Reasonable Rates

Runyon Testing Laboratories
1106 Board of Trade Chicago, Illinois
"Runyon Analyses Help Sell Food"

Triple XXX Alfalfa Meal

Use more of it—it's healthful

THE DENVER ALFALFA MILLING & PRODUCTS CO.
Merchants Exchange ST. LOUIS LAMAR, COLO.

BUYERS OF

BURLAP & COTTON BAGS

any quantity.

Capital Bag & Burlap Co.

83 W. Fulton Street.

Columbus 15, Ohio



Corn Gluten Feed, Corn Oil Cake Meal,
Brewers' Dried Grains Malt Sprouts

ANHEUSER-BUSCH, INC., ST. LOUIS

HAVANA, CUBA.—For the remainder of the year the Cuban government has placed on the list that may be imported free of duty hay, alfalfa meal, bran, oil cake and meal and other cattle and poultry feeds.

CHICAGO, ILL.—A hearing was held regarding misrepresentation of poultry and livestock feed by Dawe's Vitamelk Co., March 15, by trial examiner Randolph Preston of the Federal Trade Commission.

DISTILLERS DRIED GRAINS production during February amounted to 48,500 tons, against 32,500 tons during February, 1944, as reported by the W.F.A. In 1941 the February production was only 19,100 tons.

PORTLAND, ORE.—A shipment of 21 pint bottles of Bovex by the Triangle Milling Co. was seized by the government at Petaluma, Cal., and destroyed on account of numerous false representations as to its value in breeding.

MAXIMUM wage rates for mowing, raking, baling and hauling and piling of alfalfa hay in the Palo Verde Valley of Riverside County, California, have been established by Specific Wage Ceiling Regulation 43, just issued by the War Food Administration's director of labor.

INDIANAPOLIS, IND.—C.C.C. has announced that there will be no feed wheat allotment for the month of April. The feed industry is much concerned over this action for the fact that heavy wheat supplies are needed now that the chick season is near, and mill-feed supplies are scarce.—Fred K. Sale.

THE WAR FOOD ADMINISTRATION reports that no allocations of feed wheat are being made for April by the C.C.C. However, some sales will be made during April in the states served by the Portland, Ore., regional office, which include Washington, Oregon, California, Nevada, Idaho, Utah, and Arizona, and deliveries will be made by the Corporation against allocations which have been set up for other States during the first quarter of 1945.

Release of Molasses for Agricultural Uses

This direction authorizes suppliers of molasses (producers, primary distributors, secondary distributors and importers as defined in Order M-54) to distribute a limited quantity of molasses to Class 2 purchasers (as defined in that order) for the manufacture of mixed feeds, and to Class 7 purchasers (as also defined in that order) for resale for ensilage, direct feed or insect control, upon receipt of a WFA (War Food Administration) certificate.

Any Class 2 or Class 7 purchaser desiring to acquire molasses in excess of the quantity permitted under paragraph (c) (1) (ii) and (vii) respectively of Order M-54, should apply for permission to do so by letter addressed to the Feed Management Branch, War Food Administration, Washington 25, D. C. If War Food Administration determines that the application should be granted, it will issue a WFA cer-

tificate to the purchaser entitling him to receive and use a specified quantity and kind of molasses for the manufacture of mixed feeds or for resale directly to persons for ensilage, direct feed, or insect control, which ever is the case. The Class 2 or Class 7 purchaser may then place a purchase order for the specified quantity and kind of molasses with a supplier and he must surrender his WFA certificate to the supplier. A Class 2 or Class 7 purchaser acquiring molasses in this manner may use it for the purposes specified on the certificate without regard to the restrictions of paragraph (e) (1) of Order M-54. No beet molasses may be used for the manufacture of mixed feeds as provided in paragraphs (c) (5) of Order M-54.

Margin Over Replacement

Jos. E. Donovan told the N-W Feed Mfrs. Ass'n at Minneapolis Mar. 12 on his return from the meeting Feb. 23 at Washington that Advisory committee members from both the Class A and Class B groups strongly opposed a requirement for margin over replacement being written into the O.P.A. regulation, because of the inequities it would present and the difficulties in enforcement. They contended that formula feed prices were forced, thru competition, to follow changes in ingredient costs, and pointed to trends of the past two years to support their contention. After the hearing, the proposal for the margin over replacement requirement was dropped.

New Nationwide Hay Ceiling

Nationwide dollar-and-cent ceiling prices on all types of hay, at all levels of distribution, were established Mar. 22 effective May 1, by the Office of Price Administration. Previously, only alfalfa hay was under price control. The new ceilings will reflect parity to producers.

Ceilings on alfalfa hay are increased by 50 cents per ton in areas north of the Ohio River and west of the Mississippi River; by \$1 per ton in the areas directly east and south of the Ohio and Mississippi rivers; by \$2 per ton in the southeast and eastern seaboard states; and by \$3.50 per ton in the areas surrounding the cities of New York and Boston.

Parity on all types of hay was \$20.40 per ton on Jan. 15, 1945. That price was higher than the average price for all hay during the base period, Jan. 1 to Sept. 15, 1942.

With hay prices, except alfalfa, uncontrolled, sharp increases above parity have resulted in some areas. The total supply of hay available for livestock feeding during the 1944-45 feeding season is about 4,250,000 tons less than last season's supply, with no significant change in the number of hay-consuming animals. Supplies per hay-consuming animal unit are substantially lower than last year in several of the deficit hay producing states. This has caused an advance in prices of certain lower quality hays, distorting the normal relationship between the prices of lower quality hays and alfalfa.

Carload dealers are allowed a \$2 per ton mark-up over the maximum prices they may lawfully pay a producer or dealer from whom they buy, plus transportation costs actually incurred. A total of no more than one dealer's mark-up may be added in any one city in which the hay moves. No more than \$4 per ton mark-up may be added as a total of all dealer's mark-ups, on carload sales. However, an additional \$2 dealer mark-up is permitted where hay has been warehoused and resold in less-than-carload lots to any one other than feeder. This is to permit a dealer to supply a small retailer.

Baled hay is priced \$5 per ton higher than loose hay, if it sold single-compressed. Double-compressed baled hay is priced at \$7 per ton higher than loose hay.

Ceiling on Wet Corn Milling By-Products

Effective Mar. 5 the O.P.A. has issued Supplement 8 to F.P.R. 3, making changes that affect the base price of wet corn milling by products for animal and poultry feeds, as follows:

Section 1. Explanation of the relation of this supplement to Food Products Regulation No. 3. Not all of the provisions affecting maximum prices for sales of wet corn milling by-products for animal and poultry feeds are stated in this supplement. Those which are not specifically set forth here are stated in Food Products Regulation No. 3 and they are just as much a part of this supplement as if they were printed here.

The particular sections of Food Products Regulation No. 3 which are applicable to this supplement are listed in appropriate places in the provisions which follow. When any applicable section of the regulation is amended, the amendment is also applicable to this supplement.

Sec. 2. Applicability. Except for those sales exempted by paragraph (a) of this section, this supplement shall apply to all sales of wet corn milling by-products for animal and poultry feeds within the United States, and to all deliveries of such products, whether immediate or future.

(b) Additional definitions. When used in this supplement, the following terms shall have the following meanings:

"Wet corn milling by-products for animal and poultry feeds" means those by-products of the milling of corn by the wet corn milling process which are used for feeding animals and poultry. These by-products include but are not limited to corn gluten feed, corn gluten meal, corn oil cake, and corn germ meal as each is defined in the 1943 issue of the official publication of the Ass'n of American Feed Control officials.

Article II—Pricing Provisions

Sec. 6. Base per ton prices for wet corn milling by-products—(a) Base per ton prices for domestic wet corn milling by-products. Base prices for domestic wet corn milling by-products are set forth below. These prices depend upon the giving and fulfilling of a guaranty of minimum protein content.

"Standard protein content" is 41% for gluten meal and 23% for gluten feed.

The base prices set forth in this section are for sales and deliveries of 60,000 lbs. or more, for carload shipments, and for pool carlots. In the event you sell and deliver a less-than-carload lot, you may add \$1 per ton to the price listed below in arriving at your base price.

(1) If you guarantee at the time of sale that the lot will contain at a minimum the standard protein content, and you fulfill such guaranty by delivering a lot with at least that protein content, the base per ton price shall be as follows:

(i) At Chicago, Ill., Kansas City, Mo., and St. Louis, Mo., the applicable price set forth below:

Commodity	Per ton
Gluten meal	\$45.00
Gluten feed	38.00
Corn oil cake	40.00
Corn oil meal	40.00
Corn germ meal	40.00
All other wet corn milling by-products....	38.00

(ii) The base per ton price at any point other than Chicago, Ill., Kansas City, Mo., and St. Louis, Mo., shall be the applicable base price set forth above plus a transportation charge equal to the lowest carload commodity rate on grain and grain by-products applicable to the commodity being priced (including the 3 per cent transportation tax) or if none, the grain by-products reshipping rate (including the 3 per cent transportation tax) to such point from Chicago, Kansas City or St. Louis, whichever results in the lowest price at the point of delivery.

(2) If you guarantee, at the time of sale, that the lot will contain, at a minimum, any specified protein content less than the standard protein content for the commodity, and you fulfill such guaranty by delivering a lot with at least the minimum protein content guaranteed, you determine your base price by deducting from the price for the commodity listed in paragraph (1) above, 75c per ton for each unit of protein or fraction thereof by which the actual protein content of the lot is under the standard for the commodity.

(3) If at the time of sale you guarantee any minimum protein content and you do not fulfill such guaranty on delivery, your base per ton price shall be reduced in such proportion as the deficiency bears to the guaranty.

(b) Maximum mark-up. As a processor you are not permitted to add a maximum mark-up in figuring the maximum price for the sale of any lot unless you have unloaded such lot into a warehouse or store operated by you as a separate place of business not located at the production plant and you sell from such warehouse or store. If, as to any lot, you comply with this requirement, you may add the appropriate one of the following mark-ups:

Per ton
If you sell to a feeder from a store.....\$4.50
In all other cases 1.50

Sec. 8. Maximum prices for sales by wholesalers and retailers. Section 3.4 of Food Products Regulation No. 3, which provides a pricing method for wholesalers and retailers, and Section 3.5 of Food Products Regulation No. 3, which provides base prices for wholesalers and retailers, are applicable to this supplement.

(a) Base prices. Base prices referred to in Section 3.4 are the base prices set out in Section 3.5 of Food Products Regulation No. 3.

(b) Maximum mark-up. This regulation aims to prevent the inclusion in any maximum price of more than one mark-up for any class of seller. As a retailer, you can always add a retailer's maximum mark-up, since a seller can qualify as a retailer only when he is selling a particular lot to a person who will use the lot and will not resell it. It is therefore impossible for two retailers to handle the same lot. As a wholesaler, however, you are permitted to add the maximum mark-up set out below in figuring the maximum price for the sale of any lot only if no other wholesaler has already handled the lot. On this condition, the following maximum mark-ups may be added:

Per ton
Wholesalers\$2.50
Retailers 5.50

More Pork from Less Protein

The amounts of protein consumed by pigs per unit of gain were reduced by medium- and low-protein rations as contrasted with high-protein rations, altho gains were made at a slower rate. At from 73 to 125 lbs. live weight the percentages of protein in the high-, medium-, and low-protein rations were 20, 17.5 and 15 per cent. Above 125 lbs., the percentages of protein were reduced to 17.5, 15, and 13.6 per cent in these groups. The different percentages of protein in the rations were obtained by variations in the proportions of ground wheat, alfalfa meal, tankage, and soybean meal.—Minnesota Experiment Station.

BUCKWHEAT is still on a reasonable cost basis compared with prices on all other grains. Our domestic supplies may be completely exhausted before new buckwheat comes on the market next October.—Blodgett's Buckwheat Bulletin.

FOR BALANCE FOR QUALITY FOR PROFIT

100 LBS. NET
SWIFT'S
SOY BEAN OIL MEAL

PROTEIN ANALYSIS
FAT MINIMUM
FIBER MAXIMUM
A.F.F.

Protein-rich, an' how!

Palatable — Mm-m-m!

For better balance — keen stuff!

Swift & Company

Mills at: Champaign, Illinois Cairo, Illinois
Des Moines, Iowa Fostoria, Ohio Blytheville, Arkansas

Urea in Limited Amount Is Safe

Some 15 or 20 cows in New York died after having been fed with feeds containing urea.

The New York state feed inspection therefore issued an order prohibiting the use of urea in feed, which order was opposed by the American Feed Manufacturers Ass'n.

An examination of samples taken from the 18 to 20 per cent protein feeds involved revealed the presence of from 15 to 25 per cent urea, whereas, the recommended maximum amount for direct feeding is approximately 3 per cent of the grain ration. These high concentrations were the result of mixing errors in a few of the mills and were traced in one instance, at least, to carelessness on the part of one employe in the plant.

Representatives of the state and the feed industry met at Albany, N. Y., and voted that the use of urea should not be prohibited, but that every means possible be taken to advise every segment of the feed and livestock industry to use not more than the recommended maximum amounts and that this be evenly distributed thruout the mixture. To accomplish this objective, Mr. Plumb of the New York department, and chairman of the meeting, appointed a committee of three consisting of Dr. Turk of Cornell, Earl Foster of the New York State Department of Agriculture, and Dr. L. E. Bopst, secretary of the Ass'n of American Feed Control Officials. As a result of their efforts the following report has been submitted:

UTILIZATION OF UREA.—Since World War II, urea has been utilized in this country to increase available protein in cattle and sheep feeds. Extensive studies at leading agricultural colleges and experiment stations in the United States demonstrate without exception that urea, in scientifically safe amounts, is properly assimilated. It can efficiently replace a limited portion of the normal protein in the diet of such ruminants as dairy cows, growing heifers, steers and range cattle. While it can be utilized by sheep, urea has not given completely satisfactory results for fattening lambs. The conversion is effected in the rumen, first, by a decomposition into ammonia and carbon dioxide, followed by absorption of ammonia into the semi-solid food mass and subsequent micro-organic activity to produce suitable forms of protein. Correct

utilization is dependent in some degree upon the other components in the diet.

All experimental results show that urea is most safe and efficient as a protein substitute when it supplies approximately one-third of the total crude protein in the grain ration fed to the ruminant. This indicates not more than 3 per cent urea, equivalent to 8.6 per cent crude protein in the average 16-24 per cent grain ration, or not more than 1 per cent of the total ration including roughage, on a dry weight basis.

Urea is not converted to useful protein in the digestive systems of non-ruminants such as swine and poultry, but merely passes through unchanged and without harm to the animal.

Recognition of the employment of urea as a partial protein supplement as well as limitations in its use is given by the Association of American Feed Control Officials' Resolution No. 20, adopted 1941 and amended 1944, which reads in part, "... Urea is to be used only in such limited quantities as to insure the total amount present does not exceed 3 per cent of the total grain ration."

Any hazard or limitation in the use of urea as a feedstuff ingredient should be made clear to all feed manufacturers and mixers, since well over 700,000 tons (14,000,000 bags) of commercially mixed feed containing urea were fed in the United States during the past year. This was necessary to supplement the inadequate protein supply.

The recent animal deaths in New York reveal the fact that a high concentration of urea can be toxic. Some sacks of a commercial mixed 18 per cent feed, found to contain 16-20 per cent urea, caused the collapse and subsequent death of cows within 15 to 20 minutes after feeding. The error resulted from an operator failing to stop the flow of urea during a temporary shutdown of the mill.

REQUIRES THORO MIXING.—Feed from another manufacturer involved lumpy material causing incomplete mixing and localized high concentration of urea. It is probable that the affected cows consumed three-fourths of a pound or more of urea at a single feeding. Presumably the toxic effect resulted from formation of a large excess of ammonia, over and above the animals' assimilative ability. However, experimentation has shown that the odor of ammonia in urea feeds does not necessarily indicate a hazardous condition, but merely that some potential protein is being lost.

Summarizing, it can be said that the enormous number of animals consuming urea rations in experimental and commercial feeding in the past furnish ample evidence that no danger exists, or harmful effects can ensue, as long as the urea content of the grain ration is not greater than 3 per cent. It appears extremely

important that the recommended limits and feeding instructions be strictly followed, and every precaution taken to insure thoro distribution of urea in the feed when manufactured. Feed manufacturers state that there is little possibility of urea segregation in the bags, if the feed has been mixed properly. Neither does it seem likely that urea will settle out in mixed feeds shipped in a loose condition.

Extra Molasses for Feeds

The Feed Management Branch of the War Food Administration will make available to feed manufacturers on application ex-quota blackstrap and hydrol molasses during the second quarter of 1945 under conservation order No. M-54.

Applicants will be required to show their dairy feed production during the first quarter and their planned output for the second quarter.

ON A SALE of oats in store, if you sell on applied billing you take the ceiling at point of origin of the billing to determine the ceiling on the oats delivered your customer, thus your ceiling would be the f.o.b. ceiling, plus transportation.

The Feed Problem in India

By BEN L. BYER

In India, the mowing machine, used to cut grass for the cattle, is simply a group of girls, or women, with sickles. There are few, if any, modern mowing machines, as we know them, in India. The girls who cut the grass inch their way along over the field, cutting the grass a handful at a time, and laying it in rows. This may seem to be a slow, hard way of making hay.

And when the grass is cut there are no modern vehicles to haul it home. It is rolled in large bundles and carried on the heads of these same girls. It is hard for us to understand how enough grass can be secured in this slow way to feed the work oxen and the dairy cattle. But in India where the women do many of the tasks this is one of the jobs that falls to them.

And these people do not choose their work or occupation. They are born into it, and what the parents do the children grow up to follow. The son of a farmer is a farmer and can be nothing else. The daughter follows the trade or occupation of her mother. So, it is most likely, these girls will always cut and carry grass for the cattle, as their parents did before them. Such a system would not appeal to Americans, but in India they seem to get on quite well, and accomplish their tasks satisfactorily.

KELLY DUPLEX
Everything for Mill and Elevator
THE DUPLEX MILL & MFG. CO., Springfield, Ohio

INSTALL
Jacobson MACHINERY
for BIGGER PROFITS
UNIVERSAL Hammermill
AJACS Pulverizer
ECONOMY Magnetic Separator
CORN Cutter and Grader
Vertical Feed Mixer
Truck Dumps and other equipment. Write for information.
WANTED — Distributors or Sales Representatives in Northeast and other open territories. Write for our proposition.
A. E. Jacobson Machine Works, Inc.
1034 10th Ave. S. E. Minneapolis, Minn



In India Hay Is Cut by Girls Who Carry it to the Village.

Pricing Pea Size Meal

In the former regulations covering linseed and soybean meal, processors were permitted a markup for "pea size" meal. These regulations contained no specific definition of "pea size" meal, but normal trade practices were applied in determining this product. With the issuance of Food Products Regulation No. 3, an attempt was made to include "pea size" meal in the definition of "sized cake" by stating that ground oil cake must not be so small as to pass thru a 0.375 inch screen and that only limited quantities of oil meal, in keeping with normal trade practices, may be included.

It now appears, thru a survey, that the normal trade specifications for "pea size" meal is ground oil cake which will not pass thru a 1-16 inch screen. The section has therefore been amended to conform to trade specifications.

Effective Mar. 13, Section 1.18 of Food Products Regulation No. 3 is amended to read as follows:

Sec. 1.18. "Sized cake" is ground oil cake which will not pass thru a 1-16 inch screen. It may, however, include limited quantities of oil meal, not in excess of 10 per cent.

Urea to Balance Dairy Ration

The problem of balancing the ration for dairy cows after the war may be greatly simplified by the use of Urea, says G. A. Williams, Purdue University Extension Dairyman.

This product made from coal, air, and water, resembling fine stock salt, does not contain protein but furnishes nitrogen needed to make protein in the animal body. The bacteria in the paunch of the cow and other ruminants combine the nitrogen of the urea with the other feed constituents to make protein in much the same way that nitrates are made in the soil by plants.

The Bureau of Dairy Industry found that soybean oil meal can be replaced with an equal weight of low protein feed, such as corn or oats, plus one-seventh as much urea without reducing milk production.

A mixture of 95 pounds of corn and 95 pounds of oats, to which is added six pounds of urea, produces a grain mixture containing 18 per cent protein. The Wisconsin station estimates that when urea is available dairymen can afford to pay \$130 a ton when linseed oil meal sells for \$55 per ton and corn and oats, \$45 per ton.

It must be kept in mind that urea is not recommended for hog and poultry rations. The paunch of the cow is necessary to provide bacteria for the urea to be made into protein, for use in the animal body.

Phosphorus Prevents Red Water Disease

By C. W. Riggs of Utah Agr. Exp. Sta.

There is a "red-water" or post-calving hemoglobinemia of dairy cattle commonly noted in western areas, especially Utah and Idaho, which is associated with maintaining dairy herds on a ration of alfalfa and beet pulp.

Madsen and Nielsen were able to show that this condition was associated with a low level of blood phosphorus. By feeding a high-producing cow on nothing but pulp and alfalfa hay they were able to produce the disease in the experimental cow while other cows in the same herd but on well balanced feed remained healthy.

It seems very probable that the condition could be largely prevented by proper feeding and by supplying grain concentrates or bone meal during the late pregnancy and early lactation period. As in the case of milk fever, which is also associated with calving, supplementing the diet with the required mineral may not prevent every case, but it is of definite value in lowering the incidence of the condition. Bone meal supplies both the calcium

required in milk fever cases and phosphorus required for hemoglobinemia cases. Because of the acute nature of milk fever, administration of bone meal to animals sick with the disease is of little value, but in the less acute hemoglobinemia, bone meal has definite curative value.

Sickness Not Caused by Feeds

By Wm. L. Hunter, Chemist, Feed Laboratory California Dept. of Agriculture.

We have received some inquiries from members of the feed industry relative to our experiences in the study of feeds which are suspected of causing the sickness or death of poultry or livestock.

During the nine years of operation of this Laboratory, we have handled a number of cases of this type. During the earlier years of our operation they were all subjected to close chemical examination. During the past four years, we have altered our procedure to the extent that we rely largely upon the response of healthy animals or birds to the suspected feeds, that is, if the animals are healthy and exhibit no signs of toxicity following a feeding test of a few days, it is concluded that no harmful substance is present and no chemical examination is given.

In the course of all of these tests we have not found a single instance in which a harmful feed was responsible for the difficulties experienced.

We believe that any farmer should be advised first to seek the services of a competent pathologist in order to determine the presence or absence of disease. Secondly, he should examine his management practices for faults which may contribute to his troubles. It is our experience that these are the prime problems and should, therefore, be given first consideration.

Notwithstanding the rarity of harmful substances in feed, it may still be advisable to conduct feeding tests such as conducted in this Laboratory and members of our staff are always willing to investigate cases of this type.

WHEAT ground by Canadian mills during the 6 months prior to Feb. 1 totaled 55,235,944 bus. against 54,814,407 bus. in the like period of 1943-44, as reported by the Dominion Bureau of Statistics.

B Vitamin Content of Groats and Rolled Oats

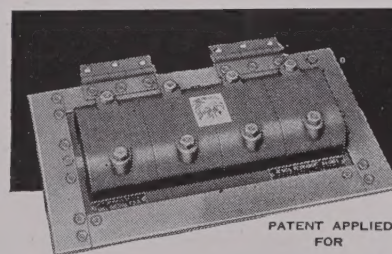
Hulled oats (groats) and rolled oats prepared from them were obtained from three commercial mills located at Cedar Rapids, Ia.; Akron, O., and St. Joseph, Mo. In the nine samples of groats the vitamin values in milligrams per 100 gm. showed the following ranges: Thiamine 0.612-0.830, nicotinic acid 0.69-0.96, pyridoxine 0.104-0.148, pantothenic acid 1.17-1.82, and riboflavin 0.126-0.167.

The rolled oats, in general, contained slightly less of each vitamin than the corresponding sample of groats, but the differences were small and in many cases the apparent loss was within the limits of experimental error. There was a tendency for the groats and rolled oats from the mill at St. Joseph, Mo., to be higher in all the B vitamins determined; this may have been due to variations in oats obtained in different regions.

When 14 varieties of oats grown on well-fertilized plats and harvested under controlled conditions were experimentally hand hulled, the vitamin values in milligrams per 100 gm. averaged 1.15 for thiamine, 1.095 for nicotinic acid, 0.195 for pyridoxine, 2.50 for pantothenic acid, and 0.164 for riboflavin. No one variety was consistently higher than the other in all the vitamins.

The methods were very satisfactory and gave almost identical results when the same sample was analyzed at different periods, but some difficulty was encountered when thiamine was determined on the same original sample ground under slightly different conditions. It is suggested, therefore, that a 10 percent differential be allowed in the thiamine results.—Wis. Exp. Sta.

C.C.C. announcement Mar. 4 that it contemplated the immediate exportation of 100,000,000 bus. made a big stir in the futures markets. The C.C.C. will use wheat that it owns and seize enough more that is under loan. The grain will be concentrated at Galveston and Houston, Tex.; New York, Philadelphia, Baltimore, Boston, and Portland, Me. No protein or premium wheats will be exported and no soft eastern wheat will be involved in the export movement. Who will pay for the wheat exported.



ERIEZ NON ELECTRIC MAGNETIC SEPARATORS

Better than your insurance policy—
protect your Equipment before an
accident

- 1 No wiring required. Simple, Efficient.
- 2 Approved by Mill Mutuals when hinged. Magnet never sparks.
- 3 Fully guaranteed. . . . In every size required.

HERE is definite concrete protection before the accident happens . . . An insurance policy takes care of you after the accident and helps you start anew . . . The Eriez Non Electric Magnetic Separator will pull tramp iron from your conveyor units or chutes, cleaning the material thoroughly of ferrous metallic objects whether your electric current is on or off . . . the Eriez works all the time. A permanent magnet, the first cost is the Eriez only cost. Write for Bulletin 101 with full installation particulars.

ADDRESS: 10 East 12th St.

ERIEZ MANUFACTURING CO. • ERIE, PA.

Plowing Up Corn

But what of the land where the tall corn grows
With its acres and acres of rows upon rows?
This is the land that has been blessed of God
Since first man set foot on its virgin sod.
Foodstuffs for fowl, for beast, and for man:
Improve upon nature? Why! Nobody can.
All woe to the ones who would impose a plan
To frustrate its benefits, God-given to man.
Cool of the morning. The wind rustling thru;
Ears of corn nodding a greeting to you.

Esther C. Shroyer.

Feed Formulas

Here is the complete, compact book of formulas meeting modern requirements for livestock, poultry and animal feeds, and a fact source on all kinds of feed ingredients with special emphasis on vitamins and minerals.

FEED TRADE MANUAL

Fourth Edition

It also contains information on modern feed nutrition, feed mill design, administration, where to buy, advertising and selling, official definitions, and state feed laws. 244 pages, pressboard binding, price \$3.00 plus postage.

Grain & Feed Journals

Consolidated

327 So. La Salle St. Chicago 4, Ill.

Help Your Feeders Feed Efficiently

This authoritative book will help you to help your feeders get the most from their feeds.

FEEDS and FEEDING

Morrison

World's most quoted authority. Known as the bible of the feed trade. Covers feeding, care and management of all classes of larger farm animals. Gives full information on composition, analysis, value and use of each recognized feedstuff. Cross indexed for ready reference. 20th edition, 9th printing, 1,050 pages, well illustrated. Shipping weight 5 lbs. Price, \$5.00 plus postage.

Grain & Feed Journals

Consolidated

327 So. La Salle St. Chicago 4, Ill.

Poultry Feeds and Feeding

WASHINGTON, D. C.—To encourage farmers to produce more chickens the retail price of chickens will be increased July 1 by one and one-half cents per pound.

LYNDON, Kan.—Alice K. Rothrock, also trading under the name Kay has agreed with the Federal Trade Commission to cease misrepresentation in the sale of formulas for treatment of poultry diseases.

CEDAR RAPIDS, Ia.—The Chick Bed Co. has agreed with the Federal Trade Commission to cease false advertising of a poultry litter or claiming that its use will prevent poultry diseases or increase egg production.

AUSTIN, TEX.—Sales of commercial feeds in Texas during the fiscal year ending Aug. 31 amounted to 3,314,368 tons, as shown by tax tags sold. During the preceding year sales amounted to 3,328,005 tons.

ST. LOUIS, MO.—Jas. M. Brennan, trading as Spry Farms, has agreed with the Federal Trade Commission to discontinue using the word Farms in the sale of chicks and designating his chicks as "ROP Sired."

WASHINGTON, D. C.—Baby chicks in commercial hatcheries in February were 12 per cent fewer than in the same month last year. The chicks totaled 108,501,000 in February, 1945, compared to 123,440,000 in February last year. Chicks booked by commercial hatcheries March 1 for future deliveries were off more than 10 per cent from the total booked on the same date last year. A big demand for turkey poults, said to be the largest encountered in department records, exists and will not be fully met.—U. S. D. A.

Animal v. Vegetable Protein for Chicks

By G. F. HEUSER and L. C. NORRIS

In a series of experiments, groups of usually 30 Rhode Island Red or Single-Comb White Leghorn chicks were fed rations containing about 20 per cent protein, mainly from soybean meal. Significantly lower weights were produced at 8 weeks of age than in lots which received some animal protein. Fish meal, meat scrap, and dry skim milk showed a supplemental effect with soybean meal which was not shown by extra alfalfa meal or cereal grass. Extra soybean meal decreased growth rate and increased feed consumption per unit of gain. There was required 1-2 per cent of fish meal or 2-3 per cent of meat scrap or dry skim milk for the most satisfactory growth to 8 weeks of age with the soybean meal protein. Feed efficiency was closely related to rate of gain and both were improved with the addition of some animal protein.

When satisfactory weights were produced at 8 weeks of age, approximately 3 units of feed were required to produce 1 unit of gain. The feed required per unit of gain was increased 10-30 per cent on the all-vegetable protein rations (soybean meal). When 3 per cent fish meal protein was added, the remainder of the protein could be furnished by (1) 25.5 per cent soybean meal, (2) 20.5 per cent soybean meal and 10 per cent corn gluten feed, or (3) 17.5 per cent soybean meal and 10 per cent linseed meal. The combination of 12.5 per cent soybean meal, 10 per cent corn gluten feed, and 10 per cent linseed meal was not quite so effective.

When sufficient animal protein was available during the first 8 weeks for maximum growth, the birds continued to grow normally to 24 weeks without animal protein in the ration. When no animal protein was available during the first 2 months the average weights were lower, but growth was accelerated when animal protein or grass silage was added to the soybean meal portion of the ration. This re-

sulted in no difference in the weight at 24 weeks of age from these groups. The all-vegetable protein rations delayed sexual maturity and egg production for several weeks.

Pullets given no animal protein up to 36 weeks of age did not attain the same average weight, even at 44 weeks of age, as pullets that received some animal protein in their ration. There were added as proteins to the rations of different groups up to 8 weeks of age different percentages of fish meal, meat scrap, and dry skim milk, and combinations of them in different lots. Lesser numbers of pullets and cockerels were continued to 24, 36, and 44 weeks of age.—Cornell Sta. Bull. 810.

Amount of Supplement Required in Turkey Feed

By R. V. BOUCHER, Pennsylvania State College

Turkeys require more vitamin D than chickens and are more selective as to the source. Growing poults make better use of vitamin D₃ such as that contained in irradiated animal sterol than of vitamin D from sardine oil or cod liver oil. Although this information was thoroughly substantiated only this year, it already is being put to use by feed manufacturers and turkey growers.

If cod liver oil and sardine oil are taken as representative of fish oils, 900 A. O. A. chick units per pound of ration may be considered an approximation of the minimum "requirement" of poults. In contrast, from 360 to 450 units from irradiated animal sterols seem to be equally effective in preventing rickets.

These findings promise to result in material savings in vitamin D concentrates used for turkeys during the next growing season. At the same time turkey growers may rest assured that their birds are getting plenty of vitamin D in the form that they can use when these requirements are met.

APPEARANCE OF FEED.—Growers accustomed to using 1 or 2 per cent of unfortified fish oils as a source of vitamin D in turkey starting mashers will notice a difference in odor and appearance in the feed when the vitamin D is added in the form of a dry powder. The fish oil adds a slight fishy odor and, at the same time, brightens up the appearance of the feed somewhat, while D-activated animal sterol is practically odorless and its use does not change the appearance of the feed.

The experimental work upon which this report is based was undertaken in the first place because of a lack of agreement among investigators who had attempted to measure the vitamin D requirement of turkey poults. It had been clearly established that chicks require about 90 A. O. A. C. chick units of vitamin D per pound of feed. Turkey poults, however, were reported to require anywhere from 320 to 900 units per pound. Because of this wide discrepancy in past reports it was decided to extend the work and attack the problem from a slightly different angle, namely, to compare the efficacy of vitamins D from different sources for turkeys. Two experiments, employing 19 and 20 groups of poults, respectively, were carried out. Four vitamin D concentrates were selected on the basis of diverse origin and current use: U. S. P. Reference cod liver oil No. 2, irradiated animal sterol, irradiated 7-dehydrocholesterol and sardine oil fortified with fish liver oils. These supplements were fed (on the basis of A. O. A. C. chick unit potency) at different levels of poults, supplementing a rickets producing diet during the first 4 weeks of life. The measure of efficacy was the comparative bone ash of fat-free and moisture-free tibias.

Distinct differences in efficacy occurred among the supplements suggesting that poults exhibit a higher degree of species specificity

than chicks, Vitamin D of the irradiated animal sterols was about twice as efficacious, on the chick unit basis, as cod liver oil. Sardine oil was more efficacious than cod liver oil, yet its response curve was more nearly like the latter than the irradiated animal sterols.

RESULTS ARE CONFIRMED.—These results were confirmed by Dr. H. R. Bird at the Maryland Experiment Station who employed vitamins D from the four following sources: U. S. P. Reference cod liver oil No. 2, another unfortified cod liver oil, irradiated 7-dehydrocholesterol, and an irradiated animal sterol preparation. Each of these materials was assayed for vitamin D potency by the A. O. A. C. chick method. As measured by effect on per cent ash in the fat-free, dried tibias, a given number of A. O. A. C. chick units of vitamin D from irradiated 7-dehydrocholesterol and the irradiated animal sterol were, respectively, 2.29 and 1.83 times as effective for poultas as the same number of A. O. A. C. chick units from Reference Cod Liver Oil. The other sample of cod liver oil was similar to the Reference oil in relative efficacy for poultas and chicks.

These results, along with similar data reported by Sanford and Jukes at the California Experiment Station help to explain part of the divergent reports on the vitamin D requirement of turkeys and indicate that the A. O. A. C. chick unit is not necessarily a true measure of the value of a vitamin D source for turkeys. Further work will be necessary to explain all the points of disagreement between past reports.

The information made available by these experiments finds practical application in the recommendation that the kind of vitamin D employed must be taken into consideration when calculating the quantity of vitamin D supplement to be incorporated into a turkey mash. If cod liver or sardine oil are used, the minimum requirement appears to be near 900 A. O. A. C. chick units per pound of diet, while 360 to 450 A. O. A. C. chick units from irradiated animal sterols seem to be equally effective.

Theoretical interest centers in the fact that the turkey may be employed as a laboratory tool to differentiate biologically between vitamins D of the animal sterol type, since it utilizes certain vitamins D with degrees of efficacy that differ from the chicken.

Nutritive Value of Feather Protein

By C. I. DRAPER, of Iowa Agricultural Exp. Sta.

The proteins, as one of the primary groups of nutrients, have commanded the attention of research workers for many years.

Experiments have demonstrated that various proteins differ greatly in nutritive value. Since a large part of the animal diet is generally compounded from protein feeds, which are usually high priced, it is important that this nutrient group be utilized as efficiently as possible.

Corn oil meal is a corn milling by-product consisting of the corn germ after the oil has been extracted. It contains from 20 to 25 per cent protein.

Eleven large companies are now operating in the United States processing from 60,000,000 to 125,000,000 bus. of shelled corn each year. This means that from 65,000 to 130,000 tons of corn oil meal are available annually for livestock feeding.

Many thousand tons of feathers are available each year, as a by-product of the poultry meat industry. Some are used for industrial purposes, but several thousand tons remain unused.

Block analyzed hens' feathers and found them to contain large amounts of glycine, cystine, arginine, phenylalanine and lysine. Experimental results of Rose, Almquist and Hegsted, et al. indicate that most of these amino acids are indispensable in the diet of the rat or chick.

Since Goddard and Michaelis demonstrated that chemically treated feather protein is digested by pepsin and trypsin in vitro it seems that feathers offer a potential source of valuable protein feed.

Since previous experiments showed that the corn oil meal diet employed was deficient in cystine, and since it is common knowledge that feathers contain a large amount of this amino acid, it seemed advisable to include feather proteins in the corn oil meal diet. Thus an investigation was planned to determine the nutritive value of sodium sulfide-treated feathers

when fed as the sole protein supplement and when fed in combination with corn oil meal. Three trials were conducted.

The results of one nitrogen balance trial showed that the chicks fed a diet containing ground feathers retained 9.59 per cent more dietary nitrogen than chicks fed the cereal diet. The feathers apparently increased the quantity of the amino acid (or acids) limiting the utilization of the protein, which evidently accounts for this increased retention of nitrogen. This seems to be a partial explanation of the increased growth resulting from feeding supplementary ground feathers, but seems inadequate for a complete explanation. Additional research seems necessary to arrive at a more complete explanation.

Chicks and rats fed a basal cereal diet supplemented with large quantities of corn oil meal (over 30 per cent) grew at a very slow rate, utilized their feed inefficiently and suffered a high mortality.

The inclusion of up to 30 per cent corn oil meal in the basal diet did not affect the palatability of the feed.

Chicks fed diets containing up to 20 per cent corn oil meal grew at a slower rate than those fed a proven diet. This difference increased very rapidly when greater quantities of corn oil meal were fed.

The addition of 0.6 per cent cystine or lysine to the basal cereal diet supplemented with 30 per cent corn oil meal resulted in a significant increase in growth.

Pilchard fish meal was most efficient in correcting the deficiency of the corn oil meal diets. Dry skim milk, feed yeast, gelatin, cottonseed meal and blood meal, respectively, were less efficient supplements.

Corn oil meal, sodium sulfide-treated feathers or combinations of these products did not have the same nutritive value for chicks and rats.

The addition of feathers to a basal cereal diet resulted in a rate of growth significantly greater than that produced by the basal diet when fed to chicks or rats.

FLORIDA amended its constitution last November forbidding the closed shop; but the regional war labor board has ordered a Miami radio station to continue its closed shop contract. The employers are subject to prosecution whatever they do.

Poultry Books

Helping your farmer patrons to increase their profits from their flocks will also increase your business. These authoritative books will aid you when advising them.

POULTRY PRODUCTION—Lippincott and Card. A book complete with information needed in the successful raising of poultry. Newly revised. 603 pages. 215 illustrations. Weight 4 lbs., price \$4.00 plus postage.

MODERN POULTRY FARMING—by L. M. Hurd. Thoroughly modern in every respect, a practical guide for large and small poultry keepers. Feeds to use to develop husky broilers and heavy egg producers in the shortest time. Which feeds contain the essential vitamins in the cheapest form. Weight 2 lbs., 600 pages, 200 illustrations, indexed, \$4.00 plus postage.

POULTRY HUSBANDRY—Jull. Contains a background of the poultry industry, the fundamental principles involved in various poultry practices, and important economic factors in producing and marketing poultry products. 548 pages. 167 illustrations. Weight 3 lbs., price \$4.00 plus postage.

TURKEY MANAGEMENT—Marsden and Martin. Because of the recognized ability of the authors, this, the first complete, non-technical treatise on turkey production should prove of great value to both large and small producers. 708 pages, 17 chapters, appendix and thorough index, 120 illustrations. Weight 3 lbs., price \$3.50 plus postage.

Nothing is more productive of profit than healthy poultry. These books will aid you in encouraging your patrons to raise the better types. Order them today.

Grain & Feed Journals

Consolidated

327 S. La Salle St. Chicago 4, Ill.



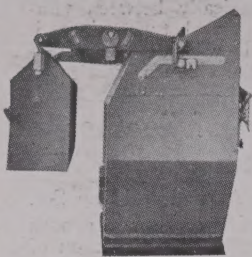
PILOT BRAND Oyster Shell is clean, pure, 100% usable. Worth pushing!

OYSTER SHELL PRODUCTS CORP. ST. LOUIS 8, MO., NEW ROCHELLE, N. Y.

RIGHT on the Beam . . .

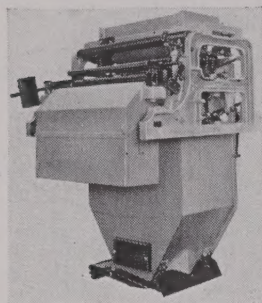
for accurate,
speedy weighing

When you weigh grain with a Richardson Shipping Scale the weight *must* be correct . . . the scale will not balance otherwise. Being an *equal arm balance* scale, weight of contents in hopper *has* to equal the weights on the other end of the beam to balance. You see with your own eyes when the scale is in balance . . . it is "right on the beam".



Illustrating how hopper and weight box balance in the "equal arm" Richardson Scale.

Positive accuracy—which eliminates overweight and underweight—is further assured by the automatic compensator which weighs the dribble at the instant the feed gate closes.



The self-acting, self-adjusting Richardson Grain Shipping Scale performs each weighing automatically, tabulates all weighings mechanically by means of an error-proof counter, and prints each weight, car by car, on duplicate scale tickets for your records.

Use a scale that will assure full payment for all grain shipments that you make . . . that protects you against claims for shortages. That scale is the RICHARDSON. Bulletin 1219-G gives further details. Write for your copy now.

7459

RICHARDSON SCALE COMPANY

CLIFTON, N. J.

Atlanta	New York	Chicago	Minneapolis	Montreal
Philadelphia	Boston	Wichita	Omaha	Toronto
		San Francisco		

GRUENDLER CRAFTSMANSHIP

Serving Industry over 50 Years

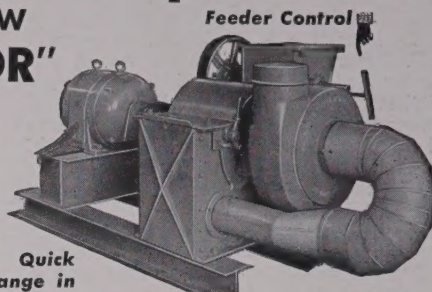
Greater Capacities

with the NEW
"SUPERIOR"

High Speed

FEED
GRINDER

Investigate this
Grinder with the Quick
Change SCREENS (change in
15 seconds).



Here is a Grinder far advanced in design to step up production of accurately ground feed to meet the demands of stock and poultry raisers.

"Data Mailed on Request"



GRUENDLER

CRUSHER and PULVERIZER CO.

2915-17 North Market St., ST. LOUIS (6), MO.

It's Easy To Buy From

"HEADQUARTERS"

Seedburo customers find that it's easy to buy from a line which includes over 350 different items . . . bag holders, scales, probes, bag ties, etc. All items are fully guaran-

teed and meet Government standards where such are available. Write for free circulars on items that interest you.



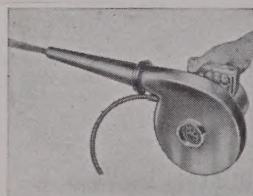
"MINNEAPOLIS" BAG TRUCK

25AR — "Minneapolis" bag truck, 7" diameter wheels, rubber tires, roller bearings, 48 inch hardwood bent plow handles, 9 inch wrought iron nose with steel strap up the handles, steel plate fastened to nose prevents load from rubbing. Useful in handling bulky sacks and boxes. \$17.50. Other sizes available.



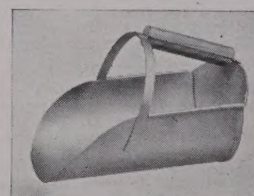
DUSTFOE RESPIRATOR

No. 97—Approved by U. S. Bureau of Mines for lead and dust and the following Type A dusts: flour, wood, cellulose, limestone, gypsum, coal, coke, charcoal and aluminum. Makes use of the positive acting U. S. Army type exhalation valve which allows for complete drainage of condensation. Rubber face cushion fits firmly to the aluminum face piece at all times. Each \$2.25. Extra filters, each, .05.



PORTABLE BLOWER

Model 6A—Keep motors, machinery, line shafting and other equipment free from fire hazard dust with a Seedburo Portable Electric Blower. 1/2 H.P. motor. Easily converted into sprayer or industrial vacuum cleaner. Price \$54.45. Attachments extra. Model 6A is especially recommended for removing dry dust from machines and motors up to 20 H.P.



HANDY SCOOP

This handy scoop is made of blue planished steel. The handle centered instead of at the end, distributes the weight evenly and makes the handling of materials easier and handier. It is available in four different sizes, 8, 10, 12 and 14 inch lengths. See catalog for prices.

620 BROOKS BLDG.

SEEDBURO
EQUIPMENT COMPANY



CHICAGO 6, ILLINOIS